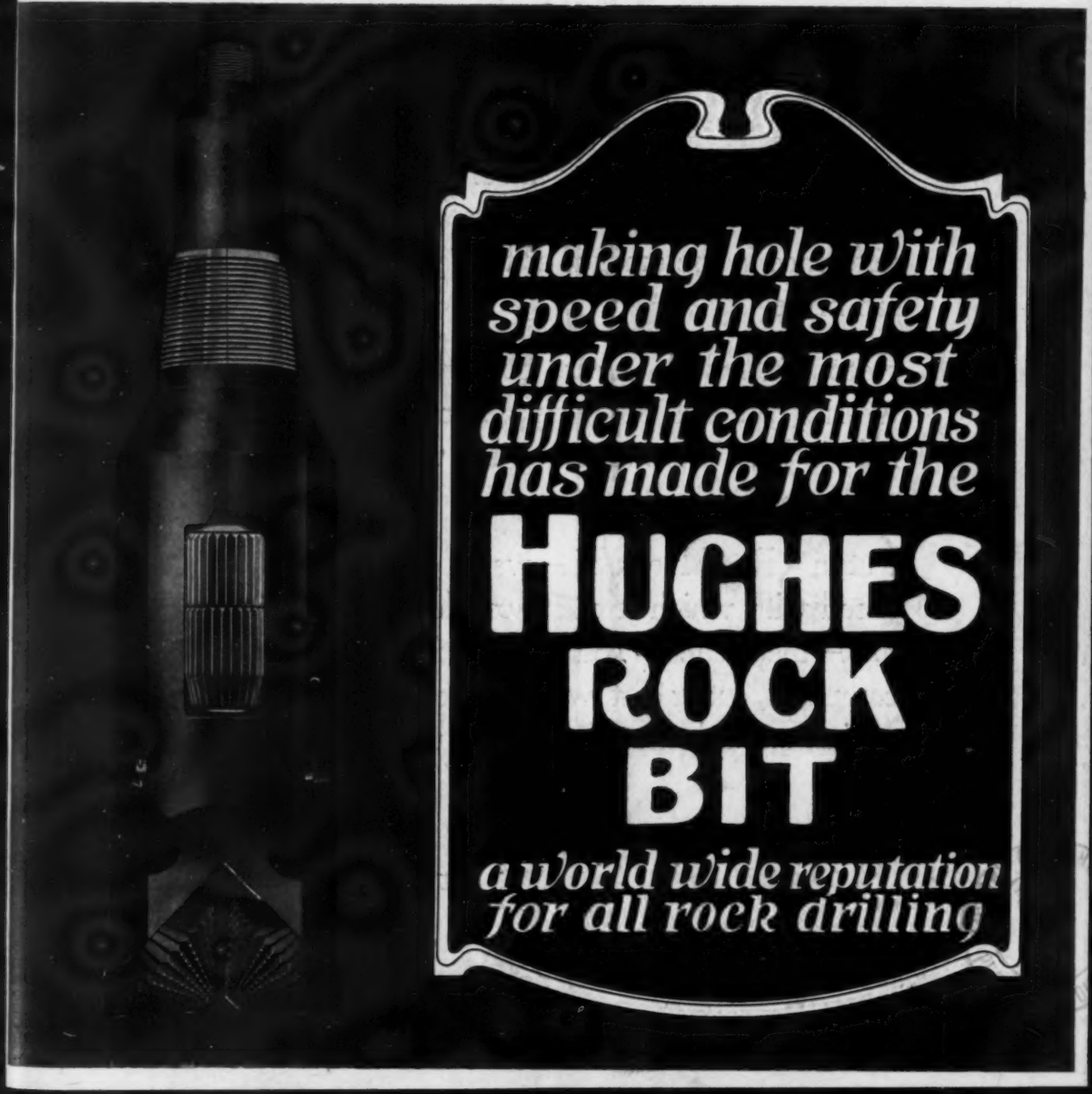
The OIL WEEKLY

10¢ A COPY

February 26, 1926 Volume 40. No. 10



Why Not Get More Hole

~every tour

Cutting tools of any kind must wear on hard formation, but there's a vast difference in the amount of hole you can make.

Reed Cutters do wear, but while wearing you will positively get more hole in less time than any other tool procurable.

Put in a Reed Rock Bit—watch the speed with which it eats away hard rock—then check your cost (time consumed, cutter cost, wear and tear) against any substitute you might use.

Reed Roller Bit Company
HOUSTON LOS ANGELES

Keep a Reed Rock Bit on Your Derrick Floor

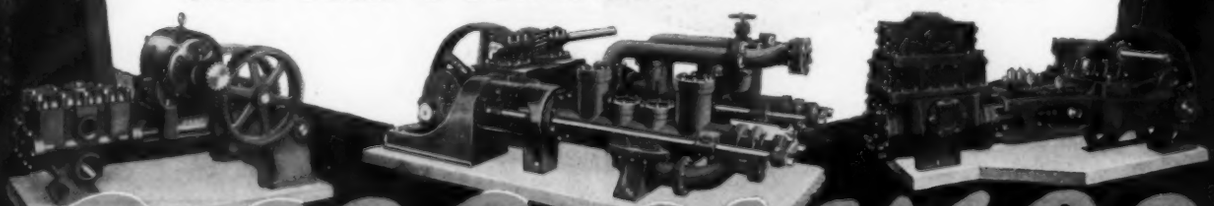
Reed Rock Bits

Follow the LEAD OF THE LEADERS

Prairie Pipe Line Co.
Sinclair Pipe Line Co.
Texas Pipe Line Co.
Magnolia Pipe Line Co.
Pierce Petroleum Corp.
White Eagle Oil & Refining Co.
Oklahoma Pipe Line Co.
Pure Oil Pipe Line Co.
Carter Oil Co.
Mammoth Oil Co.
Midwest Refining Co.
Wichita Pipe Line Co.
Cosden Pipe Line Co.
Humble Pipe Line Co.
Gulf Pipe Line Co.
Gulf Refining Co. of Louisiana
Standard Oil Co.

The companies listed in the panel above are just a few of the leaders who use GASO pumping equipment. A complete list looks like a blue book of the Petroleum Industry. Central location, sterling quality and a comprehensive line present an unbeatable combination which the leaders, being leaders, have been quick to appreciate. May we send you our new 64-page catalog?

GASO PUMP & BURNER MFG. CO. · *Tulsa, Okla.*



GASO PUMPS
for every oil industry need

Conserve

Go where you will, in every field you will find Smith Oil and Gas Separators conserving the oil and the for the equipment, and ever after the separator saving gas for fuel for the gasoline plant.

Such savings and such earnings will soon pay for the equipment, and ever after the separator will go steadily on paying a tidy profit every day.

Ask the successful producers in any field about the Smith Oil and Gas Separator. They will give you their experience, gladly.

Then give it a chance on your production to prove its profit-making worth.

NEW YORK OFFICE:
Export Representative
Oil Field Equipment Co.
30 Church St., New York
Cable Address
"Oilfield" N. Y.

CALIFORNIA OFFICE:
2041 East 38th Street
Los Angeles, California

SMITH SEPARATOR
COMPANY
Tulsa Okla.

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Perkins MacIntosh Petroleum Tool & Boring Co., Ltd., 25 Bishopsgate
Cable Address:
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TEXAS OFFICE:
511 State Nat'l Bank Bldg., Houston, Texas
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An Oil Saver Par-Excellence

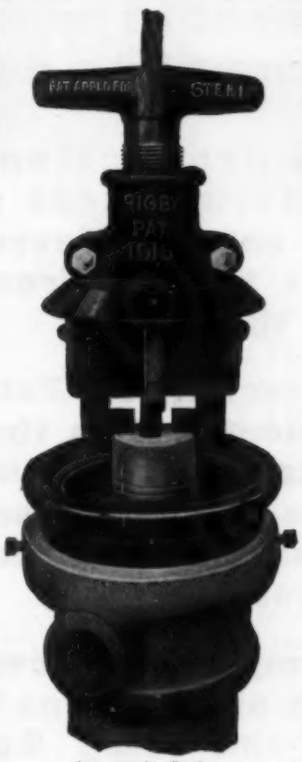
The Newest Addition to the Larkin Line

Made in the three styles shown here

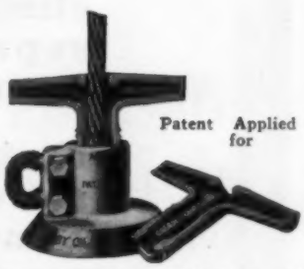
Sold by Leading Supply Stores

Patented 1914

California Style Larkin-Rigby Oil Saver



Automatic Style



Patent Applied for

Common style Larkin-Rigby Oil Saver showing steel hollow top grease cup.

Saves time by automatically latching into place and unlatching when rope socket or swab strikes it.

Saves Trouble because the automatic unlatching feature prevents breakage often experienced in the set screws of old style savers.

Saves tempers for you don't get oil soaked tightening or loosening set screws.

The **Larkin-Rigby Oil Saver** is 20 years ahead of the old style saver as many users know. If you don't know, a single "trial" **Larkin-Rigby** will give you, we believe, an experience more satisfactory than you have ever had in using this type of equipment. Check up on this. Buy just a single LARKIN-RIGBY for trial and compare it with other oil savers.

LARKIN & COMPANY

BUTLER, PENNA.

Burns Tubular Temper Screw and Carnes Oil and Gas Separator

Burns Tubular Temper Screw

The Carnes Oil and Gas Separator is the greatest improvement in pumping equipment in a decade.

Increases production, saves pumping equipment, reduces pulling expense, eliminates cut oil, prevents sand trouble, separates the oil from the gas at the bottom of the hole.

No tool is serving the Petroleum Industry more efficiently than the Burns Tubular Temper Screw. It is Standard Equipment on all tools, and its presence always indicates the selection of the highest type of drilling tools.

A most complete acknowledgment of the superiority of the Burns Temper Screw is that each and every Supply Company throughout the world carries it in stock. Such is the monument erected to the manufacturers of the Burns Temper Screw.

Carnes Oil and Gas Separator

At All Supply Stores

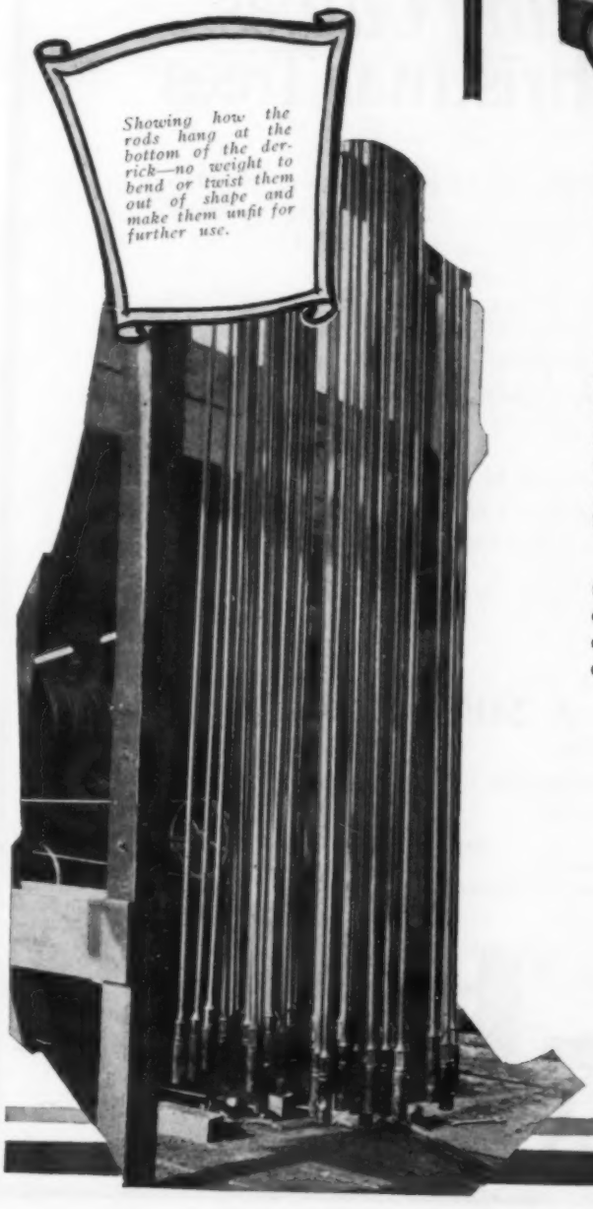
Manufactured by the

Burns Tool Co.

Okmulgee, Okla.

Say you saw it in The OIL WEEKLY

THE TIBBETTS "LORRAINE BUILT" ROD RACK



Showing how the rods hang at the bottom of the derrick—no weight to bend or twist them out of shape and make them unfit for further use.

More Speed and Safety In Handling Rods

With a Tibbetts Rod Rack your crew can pull a string of rods in about half the time ordinarily required. On reaching the top of the derrick, each stand is "hooked" by a special hanger, the rod elevator being released immediately and sent down for another stand. The derrick man then places the first stand in position in the rack and the special hanger is ready for another load.

The rack holds sixty stands in perfect formation, suspended from the top of the derrick. They are out of the way of the crew, and can not interfere with other operations. And above all, they are safe from damage as when placed on the ground or platforms.

Savings in time alone will pay for this rack on one pulling job. The saving of rods is equally important. Write for descriptive folder and prices.

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OIL WELL SPECIALTIES
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Los Angeles, Calif.

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406 West First Street
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Export Distributors:
Buck & Stoddard
30 Church Street
New York

DARLING

Put *Darling Valves* on Your Christmas Trees

After all your trouble and cost of striking oil, are you going to give "old man Waste" a share of your hard-earned profits? Or, are you going to **know** that the flow of oil is under control, without leakage at all times?

Darling Gate Valves on your Christmas Trees take the guess out of this phase of your operation. A sturdy, dependable valve, built to meet successfully oil field conditions, even that terrific strain of a gas pocket. A smooth, easily operated valve that can be opened or closed quickly without the wrenching and tearing of crowbars.

By Invitation Member

Darling Gate Valves have given faithful service in the field, main line and refinery for years. They reduce production losses to a minimum, and seldom need repairing or replacing. See that the name Darling appears on the next equipment you buy.

Detailed information on request.

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New York Chicago Oklahoma City Houston

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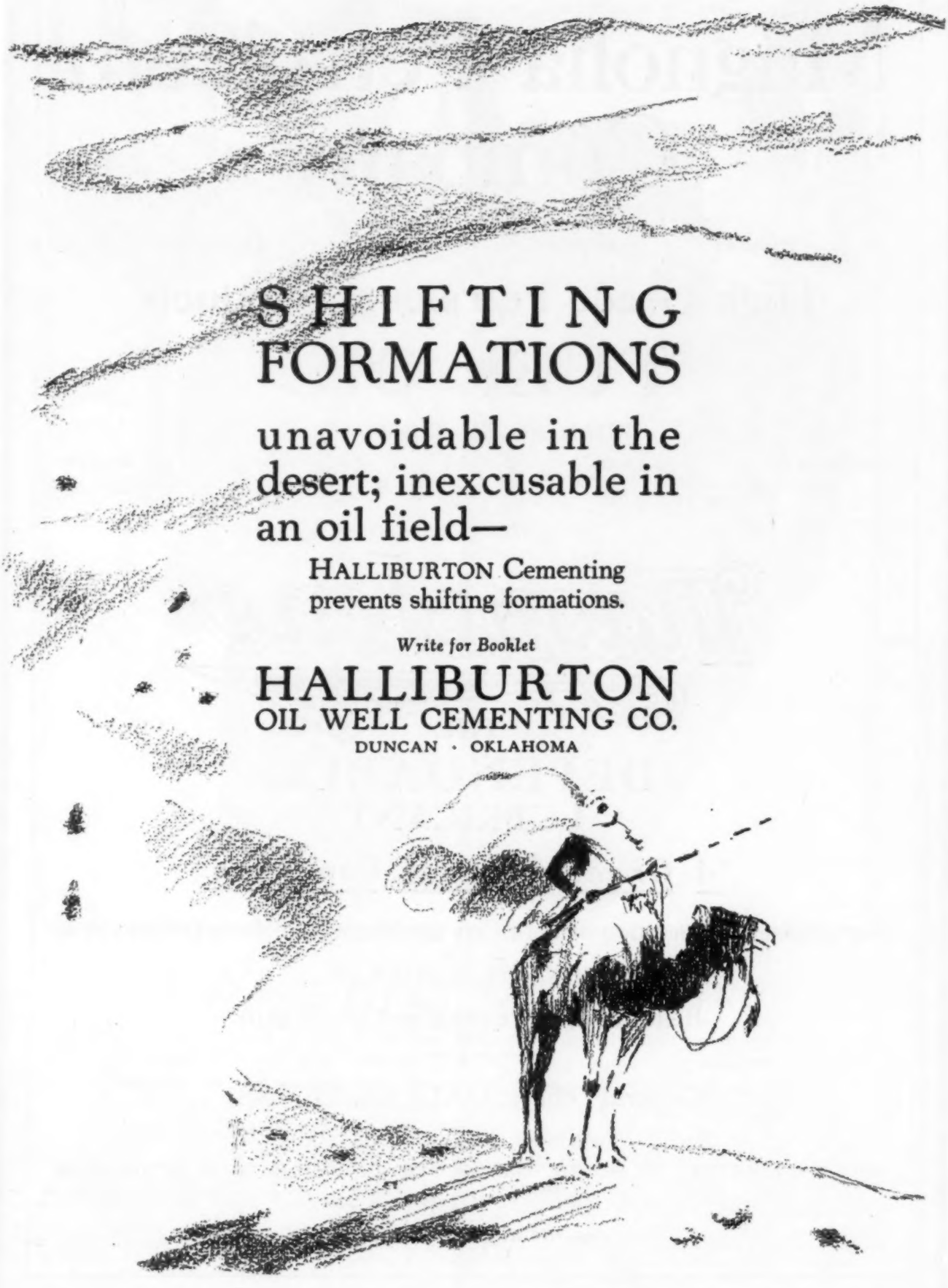
DARLING
GATE VALVES



SHIFTING FORMATIONS

unavoidable in the desert; inexcusable in an oil field—

HALLIBURTON Cementing prevents shifting formations.

Write for Booklet

HALLIBURTON
OIL WELL CEMENTING CO.
DUNCAN · OKLAHOMA

Magnolia Petroleum Company

Producer *Refiner* *Jobber* *Distributer*

High Grade Petroleum Products

FUEL OIL

LOADING STATIONS AT

BEAUMONT CORSICANA SABINE GALVESTON FT. WORTH
HARBOR ISLAND LULING CORPUS CHRISTI DALLAS
HERMA, ARK. MIRANDO

MANUFACTURER OF

Magnolene
REG. U.S. PAT. OFFICE

THE DEPENDABLE LUBRICANT

"A Grade for Each Condition

For satisfactory operation of Ford Cars use Magnolene Motor Oil for Fords

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AMARILLO EL PASO

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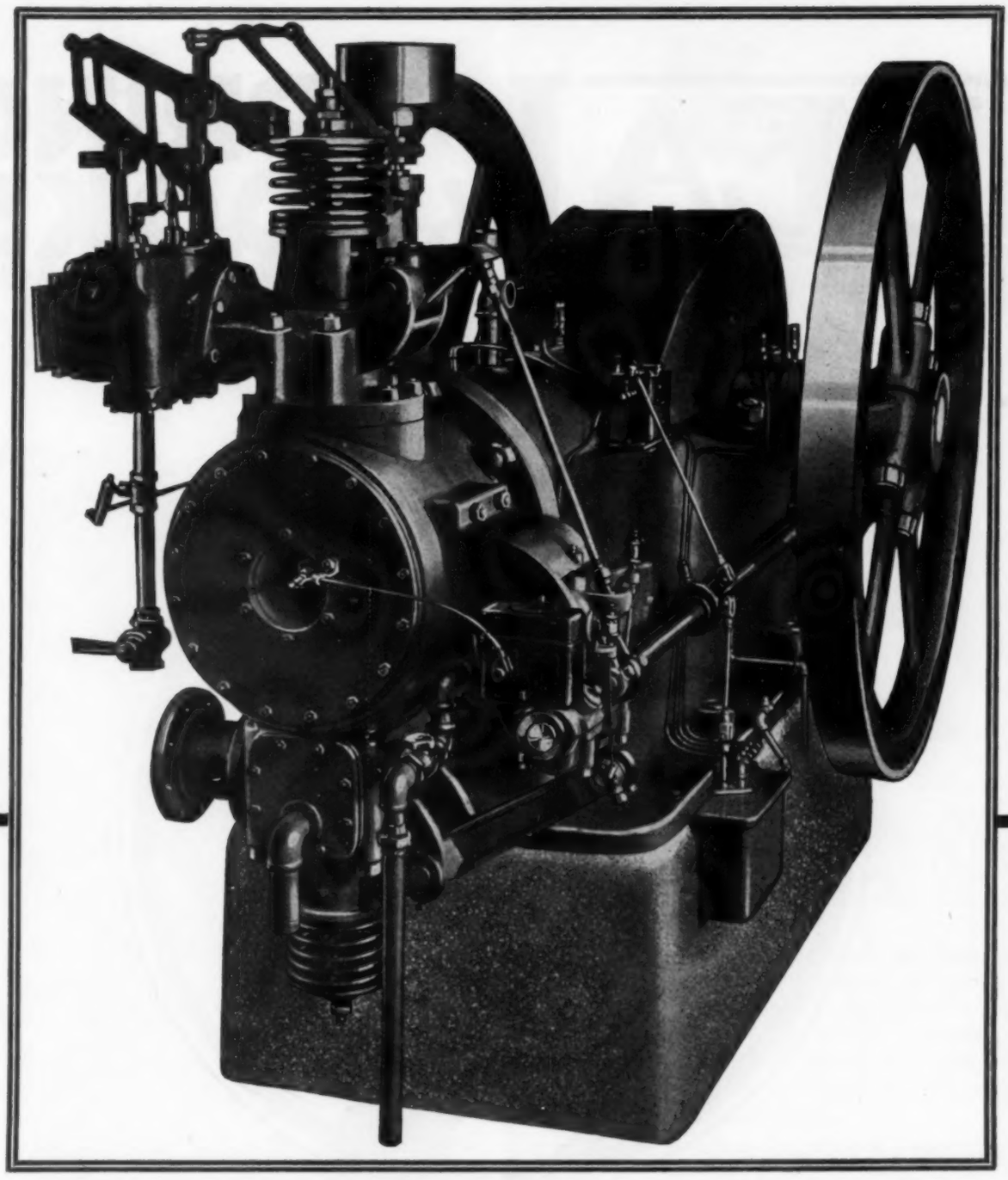

A New Reid Gas Engine

A Four Cycle Engine with many distinctive and advantageous features and which develops 65 H. P. at 150 R. P. M. The slow operating speed permits the use of a large diameter pulley with consequent greater area of belt contact and higher rate of belt travel, two factors contributing to the efficiency of the drive.

Write for descriptive catalog

Joseph Reid Gas Engine Company, Oil City, Pennsylvania, U. S. A.

Branches and Agencies: Marietta, Ohio; Logan, Ohio; Newark, Ohio; Shreveport, La.; Charleston, W. Va.; R. B. Moore, Bolivar, N Y.; Frick & Lindsay Co., Bradford, Penna., and Kentucky Distributors; S. R. Shoup, 708 Pacific Electric Bldg., Los Angeles, Calif.; Frick-Reid Supply Co., Tulsa, Okla., and Branches, Distributors for Oklahoma, Kansas, Texas, Arkansas and Wyoming. Export Sales Representative—Oilfield Equipment Co., Inc., 30 Church St., New York City. Branch Shop: Tulsa, Okla.

IDEAL SPRING HOOKS

THE NATIONAL SUPPLY COMPANIES

Say you saw it in The OIL WEEKLY

Bury it and forget it,

Reading Pipe Lasts Two to Three Times Longer

THE COSTS of laying a long-distance pipe line are tremendous. Where, then, is the economy in putting down any pipe other than the one that gives the longest service and the least trouble?

The rust-resisting properties of Reading Genuine Wrought Iron Pipe make it the first choice of those operators who demand a pipe line they can lay—and forget. Reading's slightly higher price is forgotten, too, after its many added years of unfailing service—free from leaks and replacements.

Investigate Reading Genuine Wrought Iron Pipe before entrusting your oil to pipe of doubtful qualities.

READING IRON COMPANY
Reading, Penna.
World's Largest Makers of Genuine Wrought Iron Pipe
OIL WELL SUPPLY COMPANY, Distributors
Inquire at any of their 100 Branches

READING PIPE
GENUINE WROUGHT IRON

THE "sight flow" feature of the *Emvee* separator is, alone, a sufficient reason to place it on the end of every battery of tanks—and added to this you have the "seamless welded" type of construction which still further appeals to the man who wants to conduct his crude from C. H. to P. L. without loss of gas or gravity.

Write for descriptive literature

M. & V.
TANK COMPANY
Wichita Falls, Texas

Branches at
OLNEY
VERNON
NOCONA
CROSS PLAINS

Say you saw it in The OIL WEEKLY

WHEREVER THERE'S OIL

THE NAME IS A LUCEY GUARANTEE

WHEREVER THERE'S OIL

THE NAME IS A

LUCEY

GUARANTEE

REG. U.S. PAT. OFF.

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INCLUDES:

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DRAW WORKS,
SWIVELS,
DRILL STEMS,
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SLUSH PUMPS,
ROTARY BITS,
OIL COUNTRY BOILERS,
CROWN BLOCKS,
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THE NAME IS A LUCEY GUARANTEE

WHEREVER THERE'S OIL

You Can't Fool 'Em

Any oil field worker who has had any experience with an IRON KING pulling machine can't see any other. WHY? Because he knows that an IRON KING is easily operated, is strong and durable, quick in action and dependable at all times. He knows they are built right and will do the work at all stages of the game.

Ready for the road

Balances easy

It's No Parlor Ornament

But a good, strong, durable machine that does its work as easily and quickly on the deep ones as it does on those in the shallow pay.

If your oil well supply store will not get you an IRON KING write us direct. Shall we send you a catalog?

Iron King Manufacturing Co.
Bradner — Ohio

He's putting it up

All set

WHY A SPRING IS *ESSENTIAL!*

—to the automatic tubing catcher

A tubing catcher needs a spring for the same reason that an automobile needs a MOTOR. The spring is what makes it "work".

Without the spring, when a drop occurs, parts of the tubing and catcher drop with equal rapidity. It is the fact that the weight and slips rest on a compressed spring, that retards their fall and operates the catcher—WITHIN 3 INCHES.

Without the spring the catcher MIGHT operate IN FLUID, the fluid resistance retarding the fall of the weight,—but it would not operate above the fluid unless merely by accident. Even in the fluid it might not operate quickly enough to save tearing the casing open.

There is ONLY ONE FAIR TEST for a tubing catcher—actually dropping it inside casing. View any other type of demonstration with doubt. The GUIBERSON will stand this dropping test, and will catch in 3 inches, any time you care to try it. It has stood this test in actual use, for years. That is why over 15,000 are in use today.

Any greater drop than 3 inches endangers your casing. "Better Be Safe Than Sorry" by using GUIBERSONS.

Fully Patented

THE GUIBERSON CORPORATION

Box 1106, Dallas, Texas

CALIFORNIA BRANCH: 1506 Santa Fe Ave., Los Angeles

402 W. First St., TULSA — 318 First Nat'l Bank Bldg., HOUSTON — 506 Trust Bldg., NEWARK, O.

GUIBERSON

ER BE SAFE THAN SORRY

Reduced Drilling Costs

JUST SUPPOSE—You could save 80% of the time required to change bits.

JUST SUPPOSE—You could save more than 80% of the time required to take a core.

JUST SUPPOSE—You could have sharp cutters at bottom of the hole practically all the time.

JUST SUPPOSE—You could get tools that never fail to prevent bridging over and boulders falling into the hole.

JUST SUPPOSE—You could have cutters at bottom of hole that closely approach diamond hardness but will not break.

JUST SUPPOSE—You could get tools to do these things and strong enough to resist abuse.

All these results are obtained by using the

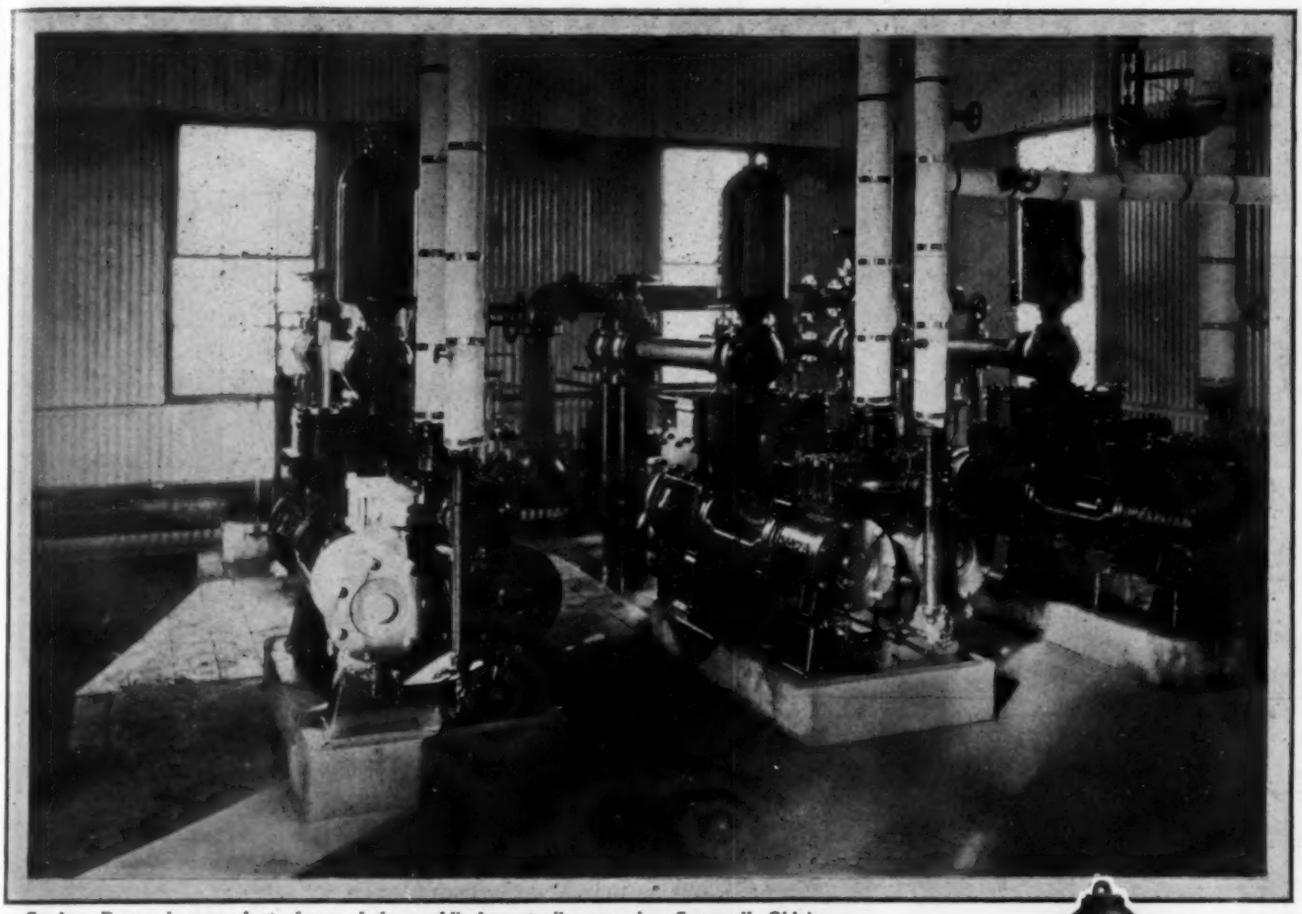
Standard Collapsible Rotary Drill and Core Barrel

Write for descriptive literature

Invented, Patented and Manufactured by

O. M. CARTER

W. T. HILTPOLD, Sales Agent
206-7-8 Scanlan Bldg., HOUSTON, TEXAS



Gardner Pumps in new plant of one of the world's largest oil companies, Cromwell, Oklahoma

GARDNER STEAM PUMPS AT CROMWELL

There is a GARDNER Pump ideally suited to every Oil Industry requirement—oil line, boiler feed, fuel feed, water supply, mud circulation. Steam or power drive, as desired.

"Quality Builders for More Than 65 Years"

The Gardner Governor Co.

Quincy, Illinois

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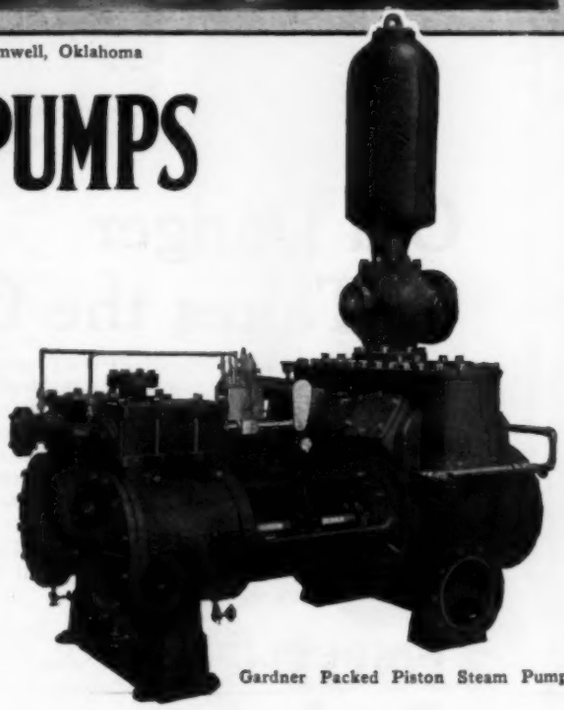

Gardner Packed Piston Steam Pump

GARDNER

Say you saw it in The OIL WEEKLY

MILDREN TUBING SUPPORT

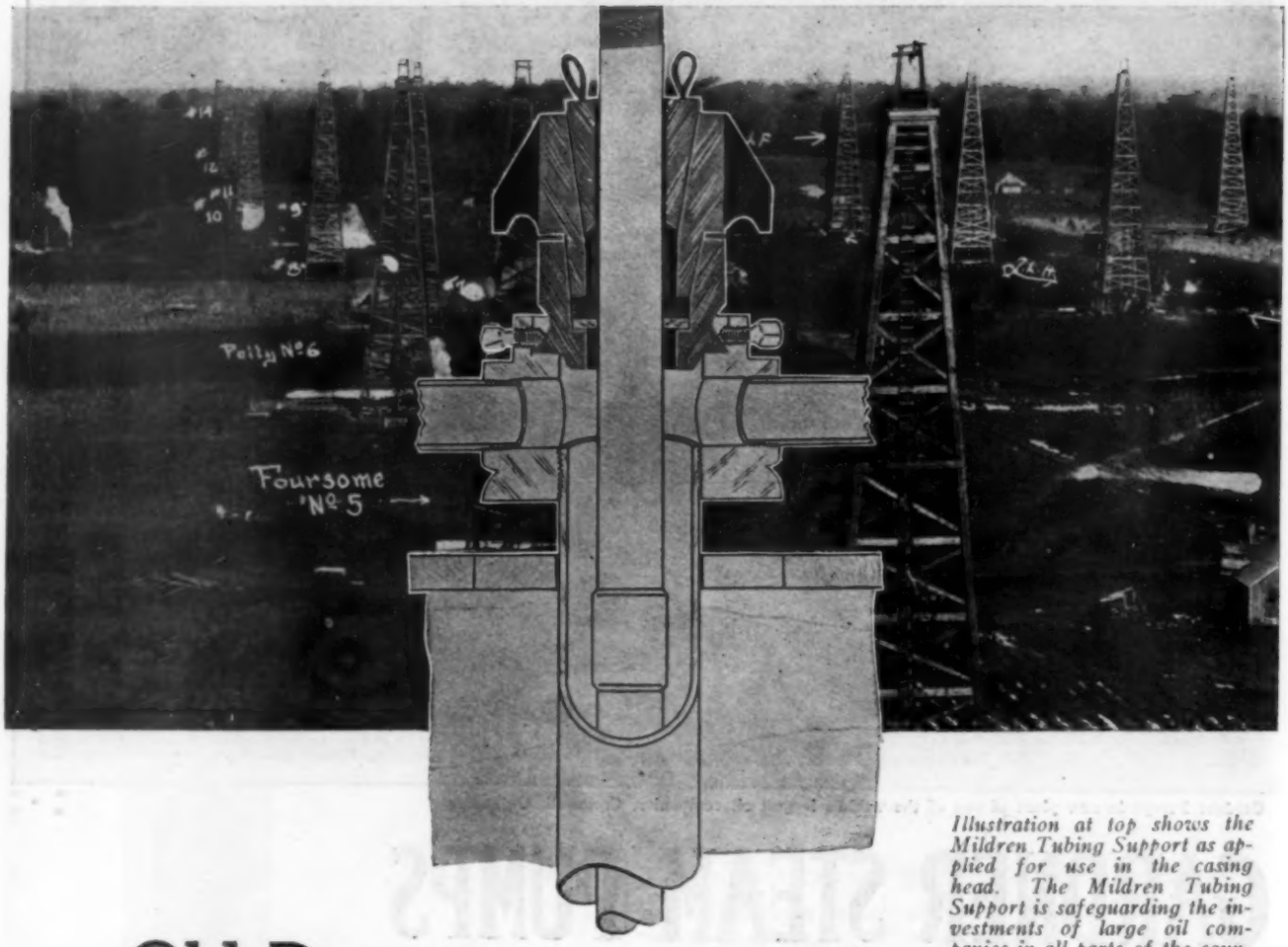

Illustration at top shows the Mildren Tubing Support as applied for use in the casing head. The Mildren Tubing Support is safeguarding the investments of large oil companies in all parts of the country.

Old Danger Takes the Count!

The MILDREN TUBING SUPPORT can be used on flowing or drilling wells, in any size or make of casing head and positively prevents a string of tubing from being dropped, due to causes originating above the casing head.

The MILDREN TUBING SUPPORT increases the factor of safety in running tubing and is used extensively for setting up tubing couplings and insures the accurate setting of a Packer at any depth in the hole.

The use of the MILDREN TUBING SUPPORT permits the safe use of extra upset tubing when it is necessary to have short joints or nipples.

HINDERLITER TOOL COMPANY
Tulsa, Oklahoma

Manufacturers of and Specialists in Drilling and Fishing Tools

BRANCHES IN PRINCIPAL OIL FIELDS

HINDERLITER

Don't tolerate swabbing difficulties

HERE, at last, is a Swab that will do the job quicker, reduce costs at least 50%, last longer and save you the expense of buying an Agitator and Perforation Cleaner—It's 3 tools in 1.

Only One Rubber Is Necessary

Necessity of using more than one rubber in the Simplex Swab is eliminated. In view of the vastly increased price of rubber this is an especially attractive feature which represents a saving of thousands of dollars a year to the oil producer.

In the old type of swab it is necessary to use two or three rubbers so that in case one of the rubbers freezes, and chunks are torn out of it, there will be one or two other rubbers functioning. In the Simplex Super-Swab the single rubber cannot possibly freeze or tear out because of its superior construction. In the first place it is fabricated with a quantity of flake graphite which makes it SELF-LUBRICATING. Secondly, it is scientifically reinforced so that a full, even closure is effected on the entire outer surface of the rubber. Thirdly, the outer body is moulded over a firm, fibrous core under heavy pressure which makes it more resilient and gives very great tensile strength.

Ask for Folder.

Insist upon the Simplex

Simplex Equipment Co.

629 So. Spring St. Los Angeles, Calif.

Simplex Super-Swab

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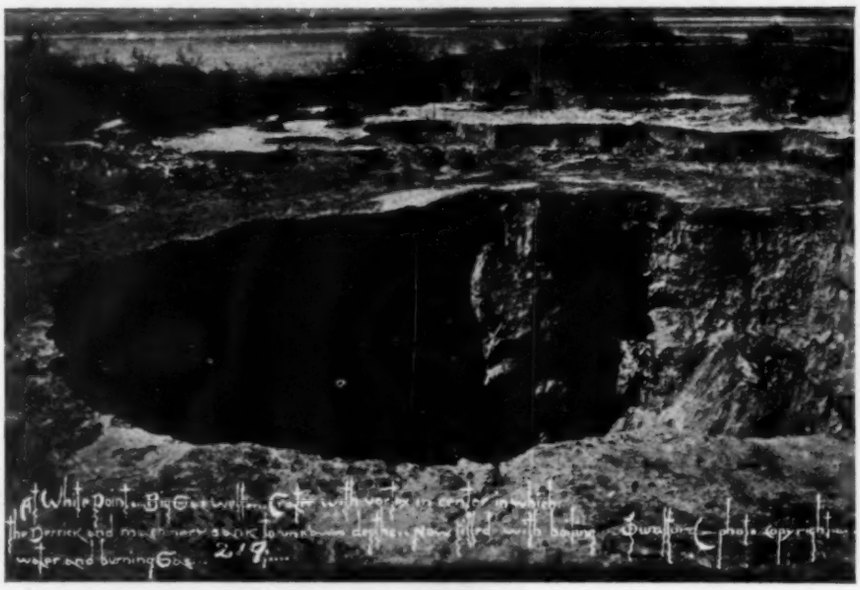

"This is what happens when South Texas gas wells blow out"

The OIL WEEKLY

February 26, 1926 **Volume 40, Number 10**

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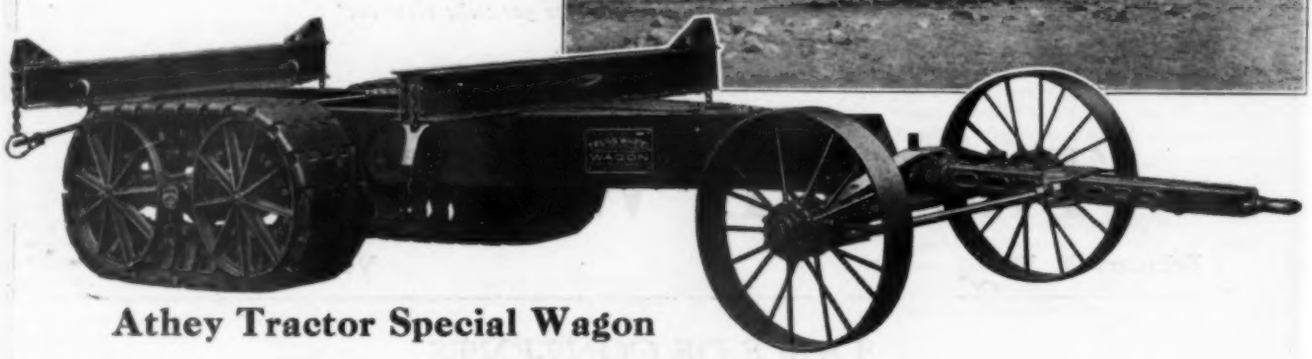

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Say you saw it in The OIL WEEKLY

Stock Depletion Warrants Strength Of Mid-Continent Crude

Official figures show that while storage for U. S. increased, the gain was in Arkansas and California

By Grady Triplett
Staff Representative

REDUCED stocks contribute one item of evidence that there is some economic cause responsible for the present strength of the Mid-Continent crude oil market. Other than refinery storage, the Mid-Continent entered 1925 with 176,754,000 barrels of crude oil in tanks. The year ended with 153,513,000 barrels of oil in this column. Crude oil stocks at refineries fell off in that period from 6,768,000 barrels to 4,366,000 barrels.

These figures are from Petroleum Statistics from 1925, compiled by the Bureau of Mines. The statistics are subject to revision. But no future corrections will change the status, although totals may be different.

In the case of crude oil, other than at refineries, figures are for Oklahoma, Kansas, central, north and west Texas. And the figures are based on the source of the oil, rather than on the locality in which it is held. Here again is a place where accuracy is not possible. The bulk of Mid-Continent oil is held in the Mid-Continent but not all. That held elsewhere is not sufficient to alter the condition of stocks having been reduced in 1925 in the Mid-Continent.

What Is Mid-Continent

Under the heading of stocks held at refineries, the Bureau of Mines lists Oklahoma, Kansas and inland Texas. This territory may not be identical with that classed as the Mid-Continent for storage crude oil not at refineries. That the same territory is included in each classification for the greater part of the area is known.

Further than this the Bureau of Mines lists Arkansas and North Louisiana as part of the Mid-Continent as regards oil held outside of refineries. While this territory is not universally accepted as part of the Mid-Continent, it is so designated in many quarters. The question of this territory has a double bearing on any discussion of stocks and crude oil prices in the Mid-Continent. In the first place tank farm stocks were not reduced here but showed a healthy gain. But the oil of the Arkansas part of that section is not of the grade commonly accepted as Mid-Continent crude.

Arkansas and North Louisiana had 33,804,000 barrels of oil in storage at the beginning of 1925. When the year closed this had risen to 42,923,000 barrels. Increased tank farm stocks in this district resulted from the record production of Smackover last summer.

But even by accepting this territory as part of the Mid-Continent, crude oil storage showed a loss for last year, for the gain of 9,000,000 barrels in Arkansas-Louisiana was overcome by the loss of 23,000,000 barrels in Kansas, Oklahoma and North Texas.

It seems fair, however, to omit the Arkansas-Louisiana area for any discussion of the crude oil price market, for the evident strength is in Oklahoma, Kansas and North Texas, with Oklahoma the hotbed of activity.

Find the Cause

Any discussion of the market situation is timely because it seems to be a common opinion that premiums have come into buying without adequate cause and that the 25-cent price increase February 1 was not only without economic justification but also in defiance of economic grounds.

One certain argument against a contention that stock withdrawals constitute reason for a rising market will be that even the reduced stocks are too high. This may be true but proof of it can not be offered. In fact the proper figures for stocks is a matter of individual opinion. One man may look at the total of crude oil or gasoline stocks and grant each as too large. To another, they may be not sufficient, while a third can have as good grounds for classing each as proper.

Stocks are higher than at many periods of the past but it has not been many years ago that there was fear of depleted stocks in the Mid-Continent as well as in other parts of the country, outside of California.

This much is true that the year 1925 saw a reduction of crude oil stocks, outside of California. And that presented here as having had a part in the fact that crude oil prices are now tending upward.

How It Happened

It has become the habit to class higher crude oil prices as folly and to blame the independent refiner with bringing about a condition that will shortly prove detrimental. Early in the winter this talk became common in the Mid-Continent and it is now accepted as true. Few think there has been any reasonable basis for the strengthening crude oil market.

Reduced stocks may not be a sufficient cause for premiums and higher prices but if this does not constitute some grounds for them, then the law of supply and demand is growing lax.

Tactics that finally brought the higher quotations, following the advent of premium paying, in Oklahoma were started last fall. Even at the time prices were reduced last summer, stocks were being reduced. Only the Prairie Oil & Gas Company and the Roxana Petroleum Corporation, of the several trunk line transporters, were not seeking connections within a few weeks after the late summer price reduction. And it was a common statement that only these two concerns were adding to storage in Oklahoma.

Reduction of stocks began early in the year. But is was only toward the end of the year that concerns deemed it necessary to move against this by seeking connections. The activity of the trunk line buyers brought producers to the point of expecting premiums. And scores of premium rumors were run down during this period, without one proving true.

Premiums Came First

Talk of premiums, just like seeking of connections, was only evidence of a strengthening of crude oil market.

It was not until after January 1 that premium paying became sufficiently broad to put trunk line buyers at a disadvantage. When a half dozen or more concerns with big refining plants began offering premiums for the better grades of Oklahoma crude oil, the major buyers faced the problem of offering higher prices or seeing desirable oil go elsewhere.

The higher price has stimulated premium paying, if it has brought any change in conditions. For the Mid-Continent crude oil market gives evidence of being stronger at present than it was at the end of January.

The oil producer is pleased with higher prices. But he is concerned over how long it will last.

One condition not favorable to continued strength in the Mid-Continent crude oil market is that conditions there do not represent conditions throughout the whole crude market. So higher prices for Mid-Continent crude oil are an inducement for crudes from other districts to become competitors.

While California crude oil does not come into the Mid-Continent district, Mid-Continent crude oil does meet that from California in other districts. Likewise it is possible for any other district to offer Mid-Continent competition.

Indications are that crude oil stocks will continue to decline in the Mid-Continent for the most of 1926. As long as this continues, the price will have a zest it could not have otherwise.

But somewhere Mid-Continent crude

oil must meet the oils of every other section in competition. That happened in 1925, as the record of California shipments will show.

It may be well to record here that crude oil stocks for the whole United States showed an increase for 1925. Gains in California and Arkansas more than offset declines elsewhere. The year began with 409,207,000 barrels of crude oil in storage in the United States. It ended with 418,417,000 barrels in storage.

The California gain, despite shipments to the Atlantic seaboard was slightly in excess of 30,000,000 barrels.

Tank farm stock reductions by months for 1925 for Oklahoma, Kansas, North, Central and West Texas in barrels, as compiled by the Bureau of Mines:

Stocks—	
Dec. 31, 1924	176,754,000
Jan. 31, 1925	174,412,000
Feb. 28, 1925	173,510,000
March 31, 1925	172,937,000
April 30, 1925	171,565,000
May 31, 1925	170,911,000
June 30, 1925	166,204,000
July 31, 1925	163,343,000
August 31, 1925	161,627,000
Sept. 30, 1925	159,346,000
Oct. 31, 1925	159,108,000
Nov. 30, 1925	158,124,000
Dec. 31, 1925	153,513,000

Crude oil stock fluctuations in 1925 for all sections of the United States from statistics of the Bureau of Mines:

	Dec. 31 1924	Dec. 31 1925
Appalachian district	7,020,000	6,745,000
Kentucky	2,266,000	1,754,000
Lima-Indiana	1,221,000	971,000
Illinois-Southwest Indiana	10,870,000	10,582,000
Okla.-Kansas-North Texas	176,754,000	153,513,000
Arkansas- North Louisiana	33,804,000	42,923,000
Gulf Coast	20,200,000	19,263,000
Rocky Mountain	28,672,000	28,980,000
California	96,482,000	126,129,000
Foreign	734,000	407,000
Totals	409,207,000	418,417,000

Slack Gasoline Demand Not Weakening Crude Market

By Kent Ridley,
Staff Representative

SLOW demand for domestic grades of gasoline and an easier market for fuel oil is affecting the crude market only to the extent that premium offers for spot crude have been lowered to the level of bonuses being paid by independent refiners on term contracts. The current price of U. S. Motor gasoline does not justify operation of refineries on present crude prices, but the more substantial units are not concerned over having a surplus for storage at this time. Gasoline stocks at refineries are increasing, although some refiners have cut their runs, but these stocks are not out of proportion to anticipated demand, and are justified by the strong position of the crude market. Possibilities of still further crude price increases in the Mid-Continent, it is said, are contingent only upon an advance on the Pacific Coast, which is a mooted possibility, while it is conceded that an increase in the Mid-Continent that increased the present differential between present prices there and on the Coast would prove disastrous.

Patronage received from export buyers of high gravity gasoline within the past ten day period by North Texas refiners has been the principal support experienced by the gasoline market. This buying along with improved movement of the heavier ends of gasoline for domestic blending has enabled the plant owners to halt the decline of prices. The Atlantic Refining Company is credited with having placed orders lately for 500 cars of 64-66 gravity 375 end point export specification gasoline for delivery over the next 30 days to its shipping terminal at Atreco, Texas, at prices ranging from 12¾ to 13 cents per gallon f. o. b. refinery. A portion of this large order was prorated among Group Three refiners.

The volume of high test gasoline now moving to export on previous orders placed by Sinclair, Carson and more recently by Atlantic along with material contracted for over the balance of the year by Standard of New Jersey, is cutting down the current output of U. S. motor grade and other lower grades of gasoline that have been hard to move at bargain prices. As result of the reduced output of lower grades of gasoline, the market has developed favorable indications of being on, or near bottom. U. S. motor grade of gasoline is plentiful at 10 cents, and such a quotation is out of proportion to the present price of crude. Many plants have been storing this grade of gasoline rather than to accept the low price, or cut further, since such prices as now prevailing do not permit profitable operation of refineries on present high crude costs.

Kerosene and industrial naphthas have fared much better than domestic grades of gasoline lately, and North Texas plant owners have succeeded in locating a ready market for these two products at slightly increased prices. The former product is netting the refiners from 6¾ to 7 cents, but stocks are low, and current output is somewhat limited. The naphtha trade is registering growth in this major refining center, due to the quality of crude used in its manufacture. North Texas crude furnishes an excellent grade of naphtha for varnish and paint manufacturers, while laundries and cleaning establishments throughout the Middle Western States are showing a preference for the product manufactured in North Texas. Fuel oil prices have been slowly giving ground on prices, and Wichita Falls quotations now average $1.25 per barrel, with outlying refining centers asking $1.20.

The unfavorable condition of the refined market as a whole has made it necessary for refiner patrons of the spot crude market in North Texas to curb their bonuses in buying crude, and spot crude premiums are now averaging 10 cents, or the same as that paid by independent refiners for crude purchased by daily runs over a long period. Producers are showing a willingness to accept the smaller premiums during this period of low refined oil prices, with the assurance that the usual 15 to 20 per cent spot crude bonus will be restored when conditions justify.

The steady decline of high gravity crude production in Texas as a whole is commanding more attention from the various crude buying agencies than the present dull period in the refined market, which is an annual occurrence at this season of the year, and opportunities to obtain additional sources of crude supply are not being overlooked.

The Panhandle district of Texas offers more encouragement to the crude buying agencies, however, due to actual development work getting underway on a large scale in Hutchinson County, where 36 to 41 gravity crude is being produced by natural flow and pumping from 3000-foot pay in quantities that already exceed present local marketing facilities. The potential importance of this field as a high gravity crude source has been given careful study by a number of major pipe line companies in the Mid-Continent. The Kay County Gas Company (Marland crude buying subsidiary) entered into competition with local buyers several months ago for this crude, and last week Magnolia Pipe Line Company's officials decided to enter with a field gathering system and large tank farm at the nearest railroad point. Both Gulf and Prairie are also understood to be about ready to make their decisions as to entering the field with gathering lines, and tank farms. The highest price now being paid for crude in this field is three-fourths of the Mid-Continent gravity scale price.

Kingman County Well Dispels Idea Of No Oil West of Wichita

Logs show previous wildcats in this section missed pay by only a few feet

By Roye Munsell
Staff Representative

Kingman, Kansas.—The major oil discovery of 1926 to date in Kansas was the finding of oil in Kingman County. It isn't amiss to say that the discovery well, the Carter-Fleeger, Richardson 1, NEc SE 16-30-7w, is one of the greatest things which has happened in West Kansas in the way of oil development in some time.

There has long been a theory and myth that there would be little if any oil found west of Wichita, the basis being that that area is apparently on the down side of the slopes of the Great Granite Ridge.

Many wells were drilled in Kingman County and that area but with little success until the recent Richardson farm test in 16-30-7w. The comparison of the logs of those previous wells with that of the Richardson shows, however, that many of them failed by just a few feet getting the pay picked up by Carter and Fleeger in the Richardson.

About a mile southwest of the Richardson a test was drilled several years ago on the Ryal farm in SE SW 16-27-7. A show of gas was had at 1326 to 1338 feet and oil shows at 1743 and 2035 feet. The test was abandoned at 2645 feet.

Northeast of the Richardson a short distance on the Winfrey farm a test was drilled which also had several oil and gas shows but was abandoned at 3267 feet.

The Richarson test was drilled yet deeper than any of these and on January 26, and at 3860 and 3892 feet found a gas sand yielding three million cubic feet. While the well was drilling itself in during the night a small spray of oil started and next morning when the tools were run the oil began flowing at the rate of 30 barrels an hour. The tools were raised and left standing 20 feet off bottom. By early afternoon the flow had increased to over one-thousand barrels a day of 34.2° Be.

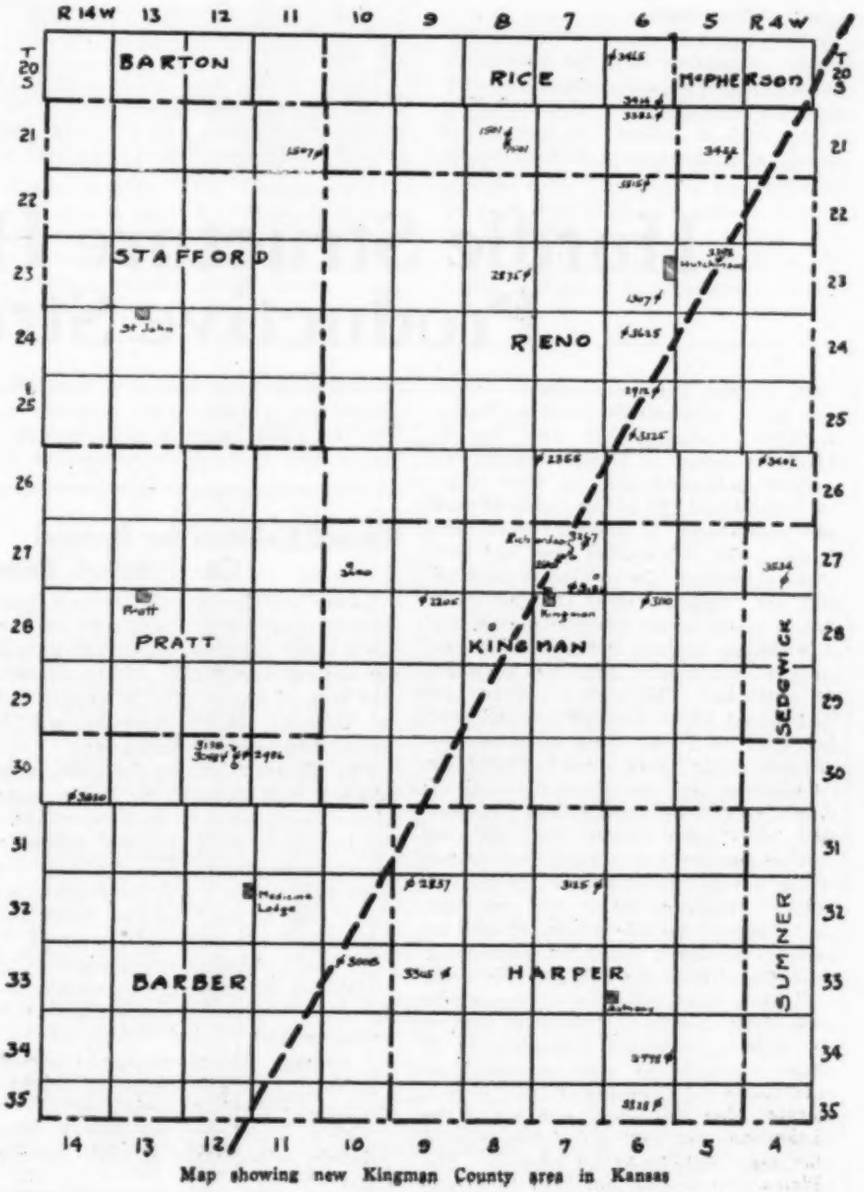
Horizon Not Identified

The producing horizon of the well has not yet been definitely defined because it is the deepest well ever drilled in that area. Evidences are, however, that it is a chatty formation in the Cherokee shales and not the top of the Mississippi lime as was generally held.

A north-south cross section of that area as shown by the logs of wells drilled leads one to expect the Cherokee shales slightly deeper than the present depth of the Richardson. The producing formation is chatty and scarcely distinguishable from that associated elsewhere with the Cherokee shales.

It is believed by geologists who have done much work in western Kansas that the Richardson test when completed will be a producer of around 500 barrels daily, and that other wells drilled to the same horizon will be of like proportions.

Although many major companies, including even the Carter which had an interest in the Richardson test, were admittedly "not interested" in that district several weeks ago, a survey of the records of the new lease holders around the Richardson looks like the "Oil Register" of the big companies. The Carter, Gypsy, Texas Company, Waite Phillips, White Eagle, Mid-Continent and many others have acreage now of varying size. Gypsy has the lion's share



Map showing new Kingman County area in Kansas

of more than 3,000 acres and as result of the newly acquired interest in the Allison-Fitzwilliams block will cooperate in the drilling af the Wilkinson 1, SE NW 25-27-7.

T. B. Slick also increased his holdings materially and has started work on the east offset to the Richardson, being the NWc SW 15-27-7w. This was the first operation to get under way after the new well came in.

The Phillips Petroleum Company, another close-in holder of Kingman acreage, has started two tests, one in the C NW 16-28-8w and the other in the C SE 9-27-8w. Both tests will go to 4,000 feet.

Revives Wildcatters

A month ago exploration in the Harper, Kingman, Barber and Reno county area of Kansas was considered a rather rank wildcat venture but today there are a score of blocks under lease, a dozen locations made and as many drilling operations underway.

This blocking and drilling has not confined itself to this district but has extended north, mainly along the so-called Abilene high.

While there is no definitely established information as to the location of this regional high, the general direction is pretty generally known. Geologists assert that it follows a line which might be drawn across Kansas southwestward from Abilene down through McPherson, Reno, Kingman and Barber counties.

BOB ALLISON
the driller, watching the first flow coming from the Carter-Fleeger, Richardson 1 test, Kingman County, Kansas. The picture was taken just before the well let loose

The probable axis of it has been shown by the heavy dotted line on the accompanying map. In the neighborhood of Dickinson County the high is clearly discernable. Further southwest much core drilling defines its direction through McPherson County. East-west cross sections as shown by wells drilled would extend it down through a point just west of the Richardson test in Kingman County. There is little doubt but what the Richardson is on or not far from the axis of this subsurface high.

When the Richardson came in in 16-27-7, Roxana, Marland, Carter, Mid-Kansas, Gypsy and others sent their men northeastward along the high to secure acreage. Some went 20 miles, some 30 miles and others as far north as Abilene.

An important test being made along the high is that by Merriman, Reeves and associates in their Luther and Anderson 1, NE SW SW 29-18-2w, ten miles northeast of the town of McPherson in McPherson County.

This well will go to 3,500 feet, which is believed to be deep enough to pick up the pay found in the Richardson. There is a dip to the southwest in that district which will throw the test in McPherson County slightly higher. The Merriman block was previously core drilled.

It cannot be expected that west Kansas will not be without its share of oil development during the coming year.

Hurdle Structure Has Long Productive Stretch

San Angelo, Texas.—Favorable indications that a long stretch of oil producing territory is awaiting the drill on the Hurdle structure in Upton County was further emphasized late last week when the Independent Oil & Gas Company and others developed a producer in Crane County after drilling less than one foot in the sandy-lime pay to a total depth of 2038 feet. This well filled 1200 feet of 32 gravity crude in the 10-inch hole shortly after tapping the pay, and is showing gas, but not in sufficient quantities to make the well flow. This well is on the Len Taylor land, H. T. Sapp survey, and near the center of a solid block of leases, aggregating 1232 acres owned jointly by Independent and Joe Maxwell et al of Fort Worth. The drilling block straddles the Crane-Upton County line, and the well is approximately six miles northwest of the Hurdle district discovery well. The 10-inch casing was set at 1630 feet, and the balance of the hole is uncased with no evidence of water. Steel tanks are being erected to drill in the well late this week.

This six mile extension to the northwest of the Hurdle field indicates that an oil producing structure approximately 12 miles in length has been uncovered, as the Plateau Oil Company et al's Union 1, located about six miles southeast of the Baker discovery well, is producing from the same sandy-lime pay horizon. The Plateau well is pumping about 10 barrels of oil and the same amount of water, but showed for a much larger producer before the water broke in after making a bottom hole shot. The Independent Oil & Gas Company's Burleson 1, located a short distance east of the Baker discovery well, is rated as a 100-barrel pumper from sandy lime pay at 2168-2231 feet after shot of 100 quarts in the pay. The shot parted the 8¼-inch casing, and the crew is now engaged in pulling the string and replacing two damaged joints before placing the well on the pump. Dixie Oil Company's Burleson 1, located west of the Independent well, is shut down for shot with 1250 feet of 32 gravity oil in the hole after drilling pay at 2188-2219 feet. The average fluid level in the Hurdle district wells is 1200 feet, and good pumpers are promised from wells not drilled into water. Marland Oil Company is soliciting the crude for purchase.

The wildcat gasser completed on the Todd ranch, section 50, block WX, Crockett County, by J. C. Cooke et al has been purchased by The Texas Company for a cash consideration of $250,000, and $400,000 additional payable out of one-third of the oil produced. This deal involves approximately 1870 acres in miscellaneous tracts near the discovery well which showed evidence of oil when shut in for a week. The deal was closed in Fort Worth on the morning of February 17, and was made without giving the production of the well a complete test. The Texas Company has not resumed operations on the test.

Record Exhibits for Natural Gas Meet at Tulsa

Tulsa, Oklahoma.—Indications from advance reservations for space are that the dealers' exhibits in connection with the annual convention of the Natural Gas Men of America, to be held in Tulsa, May 17, 18, 19 and 20, will be larger than any previous year.

The Natural Gas Supply Men, incorporated, will occupy the entire space of the Texas building at the grounds of the International Petroleum exposition for their displays. This building contains 133 booths. The convention sessions will be held in the New York building on the exposition grounds.

A. W. Leonard, vice-president of the Oklahoma Natural Gas Company, Tulsa, is president of the Natural Gas Association and Fred A. Miller of the S. R. Dresser Manufacturing Company, Bradford, Pennsylvania, is president of the supply men's organization.

Guf F. Batchelor, Pittsburgh, Pennsylvania, is secretary of both organizations.

$1,800,000 Involved in Lease Deals In Hutchinson County

By H. H. King
Staff Representative

Amarillo, Texas.—Two major deals involving producing leases and undeveloped acreage in the main part of the Hutchinson County oil and gas field were closed during the past week. The Gulf Production Company increased its holdings in the field by the purchase of five 160-acre tracts bordering on the south bank of the Canadian River from J. A. Whittenburg, fee owner, for a cash consideration of $400,000, and a like amount payable in oil. Gulf obtained five year leases on these tracts, with an annual rental of $10 per acre. The five tracts are located on the north end of alternate sections, which are 63, 65, 67, 69 and 71, all in block 46, thereby giving Gulf complete checkerboard protection extending east and west across the field.

The Phillips Petroleum Company made its third major deal for Hutchinson County acreage within the past several months with the purchase of 400 acres of proven leases and one 450 barrel oil producer from the South Hutchinson Oil Company (W. T. Cobble et al) for a total consideration of $1,000,000, of which $400,000 was paid in cash, and the remaining $600,000 is payable from one-third of the oil produced. This property involves the north half of section 13 and the south half of the northwest quarter of section 12, block "Y." Phillips is erecting a big absorption plant on a 64-acre tract adjoining section 13 on the north. Phillips Petroleum Company is now the leading operator in the Texas Panhandle, as result of having taken over the properties of the Pulaski Oil Company and Gibson Oil Corporation on a basis of one-third and one-half of the net profits, respectively.

The pro-ration of pipe line runs from completed wells in Hutchinson County will be lifted within a few weeks, or a month by reason of field tankage now being erected by the Kay County Gas Company, Marland crude buying agency, which is erecting six 55,000 barrel tanks. The Phillips Petroleum Company is reported to be asking for bids from tank builders to knock down 10 erected 55,000 barrel tanks in Oklahoma for re-erection on its tank farm site in Hutchinson County. Materials for two 55,000 barrel tanks have arrived at Magnolfa Pipe Line Company's tank farm site in section 178, block 3, Gray County, near Kingsmill, and six-inch pipe is being strung to a field pump station near the south bank of the Canadian River in Hutchinson County, a distance of about 25 miles. Magnolia has room for 50 tanks on this site, and plans to cover every location.

The Hutchinson County oil area was widened a quarter of a mile to the east early last week when Canadian River Oil Company's Kingsland 1, section 4, flowed 1000 barrels of pipe line oil after shot of 200 quarts in sandy-lime pay at 2858-2938 feet. Pulaski & Phillips Petroleum Company's Smith 2, located midway between the above producer and the McIlroy Oil Company's 600 barrel producer, is standing with the hole full of oil after drilling sandy-lime pay at 2830-45 feet, and will be given a shot as soon as facilities are available for handling the production.

McKinney-Bayer Oil Corporation's Weatherly 1, located in the northeast corner of section 17, block "Y," is showing for a 30 barrel pumper after a shot of 90 quarts in granite wash pay at 3014-36 feet, with a total depth of 3052 feet. This well passed up four million cubic feet of dry gas in broken lime at 2617-2760 feet with a show of oil at 2987 feet.

A tabloid record of every completion made to date in Hutchinson County is listed below:

WELL RECORD OF HUTCHINSON COUNTY

Company—Farm	Location	Elev. ft.	Date Completed	Pay Level	Total Depth	Initial Prod.	Present Prod.
Amarillo Oil Co., Lee Bivins No. 2-B	Sec. 90, H&TC Ry, Blk.46	3061	7-25-25	2895-2906	3137	¶140	
R. G. Barnum et al, Johnson Bros. No. 1	Sec. 37,A&B, Blk. Y	3111	5- -25	3016-22	3100	50(P)	20(P)
Canadian River O. Co., W. L. Kinglsand 1	SW¼ Sec. 4, Blk. Y		2-15-26	2842-2938	2940	1000	350(F)
Centerfield Oil Co., Smith 1	SW¼ Sec. 10, Blk. Y		1-26-26	2858-80	2915	*	SD
Coble-Heywood Synd., Coble 1	Sec. 15, TC Blk. M-25	3875	2-27-23		4001	Dry	
J. E. Crosbie et al, H. W. Pitts 1,	Sec. 7, TC, Blk. M-21	2911	10-26-25	2778-2805	2917	15	7(P)
Dixon Creek Oil Co., Smith 1	NE¼ Sec. 14, Blk. Y	3079	3-30-25	2947-60	2960	200	
Smith 2-A,	NW¼ Sec. 14, Blk. Y		1-23-26	2841-72	2872	1500	500(F)
Douglas Oil Co., G. A. Whittenburg 1	Sec. 20,H&TC, Blk. 47	3086	1- 4-26	3005-65	3065	50(S)	SD
J. A. Whittenburg 1	Sec. 21, H&TC, Blk. 47	3094	3-20-25	2995-3062	3062	55(S)	SD
Gibson Oil Corp. (now Phillips) G. A. Whittenburg 1	Sec. 62, H&TC, Blk 46	2966	11-23-25	2883-2930	2939	260(S)	165(P)
Gulf Prod. Co., Dial No. 1	Sec. 90, EL&RR, Blk. Z	3112	9- -22	3060-86	3735	30(P)	SD
Dial 2	Sec. 2, H&GN, Blk 1	3082	6-27-25	2890-96	2896	285	225(P)
E. Cockrell 1	NW¼ Sec. 10, BS&F, Blk B-3	3081	12- 6-24		3503	Dry	
J. A. Whittenburg 1-D	Sec. 2, H&OB, Blk. X-02	3082	10-25-24	3010-46	3090	15(P)	SD
J. A. Whittenburg 1	Mary Whitley sur.		2-11-26	2936-43	2943	315(F)	220(F)
Holmes-McIlroy &- McGee, Smith 1	SE¼ Sec. 10, Blk. Y	2907	8- -22	3015-76	3175	15-¶3	SD
Marland Oil Co. (was Plains) Weatherly 1	S½ Sec. 17, Blk. Y	3134	6- -24	2970-2117	3270	35	30(P)
McIlroy Oil Co., Smith 1	SE¼ Sec. 5, Blk. Y	2877	10-31-25	2772-2845	2845	1100	
Smith 2	SE¼ Sec. 5, Blk. Y		2-11-25	2843-85	2885	1000	650(F)
J. H. Middleton et al Weatherly 1	SW¼ Sec. 18, Blk. Y	3157	8-16-25	3054-3121	3121	315(F)	60(P)
Native Oil Co., Johnson Bros. 1	Mary Whitely Sur.	3002	1-26-26	2865-2960	2970	200	80(P)
New Domain O. & G. Co., L. E. Barton 1	NE¼ Sec. 33, A&B, Blk. Y	3204	8- -25	2965-3090	3132	240(S)	60(S)
Panhandle Ref. Co. et al, Dial et al 1	Sec. 90, H&GN Blk. Z		6-24-25	2980-3060	3060	300	SD
Dial et al 2	Sec. 23, H&TC Blk. 47	3056	9-24-25	2924-3045	3047	130(S)	SD
Dial et al 3	Sec. 1, H&GN Blk. 1	3029	11-20-25	2897-2933	2997	420(S)	SD
J. R. Phillips et al, W. L. Kinglsand 1	SE¼ Sec. 6, Blk Y	2887	9-16-25	2799-2849	2849	300(F)	
W. L. Kingsland 2	SE¼ Sec. 6, Blk. Y	2936	10-30-25	2780-2847	2905	620(S)	380(P)
Prairie O. & G. Co., Weatherly 1	SE¼ Sec. 23, A&B Blk. Y	3162	11-15-25	3110-26	3126	188(P)	75(P)
Mrs. D. Shaw 1	SE¼ Sec. 27, A&B Blk. Y	3156	6- 5-25	2895-2910	3560	¶29	
Producers & Refiners Co., L. Bivins 1-B	SW¼ Sec. 11, TT Co. Blk. Y-2	3208	3-18-24	1652-2657	2657	¶76	
Pure Oil Co., Johnson Bros. 1	Sec. 3, TT Co. Blk. Y-2	3174	5-12-24	2260-2542	2542	¶8	
Roxana Pet. Corp., Smith 1	NW¼ Sec. 14, Blk. Y	3001	11- 5-25	2882-2960	2960	175	85(P)
So. Hutchinson Oil Co. (now Phillips)							
J. A. Whittenburg 1,	NW¼ Sec. 12, Blk. Y	3008	12-12-25	2900-71	2971	1000	450(F)
Travelers Oil Co., W. L. Kingsland 1	NE¼ Sec. 6, Blk. Y		1-28-26	2879-92	2892	250	100(F)
Twin Six Oil Co., Kingsland 1	NE¼ Sec. 6, Blk. Y	3072	3-25-25	2962-64	2964	210	385(F)
J. W. Wilson (now A. D. Borton)							
J. A. Whittenburg 1	Sec. 73, H&TC Blk. 46	2999	4-17-25	2902-13	2919	250	SD
Western Enterprise O. & G. Co. Smith 1	NW¼ Sec. 9, Blk Y		1- -25	2750-2860	3105	10	SD
Watchorn Oil Co., W. T. Coble 1	Sec. 10, H&TC Blk. 47	2748	6-15-24		3500	Dry	
Jim Whittington et al, Sandford 1	Sec. 82, H&TC Blk. 46	3130	6- 2-23	3054-58	3240	370	SD
McIlroy & Herring et al, Smith 1	Sec. 5, M&C sur, Blk. Y		2-17-26	2756-2830	2857	150(S)	150(S)
McKinney-Bayer Oil Corp., Weatherly 1	Sec. 17, M&C sur, Blk. Y		2-18-26	3014-36	3053	50(Est)	SD

*50 barrels first two hours.

How Many Two-Legged Derricks Are You Using?

You probably say none, but is it true? Faulty foundations can cut load rating in half

By Harry Pennington

ANY type of derrick, steel or wood, high or low, double leg or single, standard or rotary, stands up better with a firm foundation under all four legs. Although a derrick of any material may be calculated to a nicety, correctly, and with an ample factor of safety, sufficiently large for this service, if the foundation under one leg sinks, that leg and its diagonal mate are relieved of load, throwing additional load onto the two remaining legs, when all calculations as to strength of derricks end in naught.

The failure of derricks under stresses far lower than should be supported by them led to the investigation by the writer of the causes, beginning in 1911, and the writer now believes with a thorough conviction, based upon examination of many failures that almost all failures due to loading, either by hoisting pipe and casing, or by pulling, are due to a sunken foundation throwing the load onto two legs instead of four, or eccentric loading.

Taking a pull, a wooden derrick fails somewhere about the water table, usually, and rightly, for the water table is dislocated by a sunken leg and foundation and loses its firm bearing on the legs, and legs lose capacity when eccentrically loaded.

The writer became interested in steel derricks when they were first built and observed a lot of twelve in service. Each derrick that failed was not loaded to rated capacity, but the foundation was inadequate in each case. Failures were laid to the derrick structure itself, without thought of foundation, but careful examination and measurement of elevation showed that the cause of failure was foundation sinking, setting up eccentric loading.

Loads on Derricks

Loads on derricks nowadays are severe; handling 3,000 to 7,500 feet of drill pipe weighing 50,000 to 100,000 pounds, and setting strings of casing weighing up to 150,000 pounds, and pulling with high steam pressure in pewerful twin engines, form loads to be reckoned with in the most careful manner as to foundations. The writer used twin engines in 1912, with 175 pounds steam pressure, which accentuated derrick strength as related to derrick foundations under light derricks.

In drilling deep wells, in pulling frozen pipe in shallow wells, where loads are greater all around with present day equipment, a foundation that will not sink proves a safeguard to life and property obtainable at a very low additional cost in some cases and, in other cases, at a reduction in usual costs. A good foundation provides against the derrick leaning over out of plumb, requiring shifting of crown block, which sets up eccentric loading; and a good, firm, substantial foundation prepares for the time when well operations require a pull to be made without delay.

The writer goes even so far as to say that a firm foundation will often obviate the necessity for doublers.

Different from Buildings

Derrick foundations are unlike building foundations; in building foundations, the design is such that the entire object of preventing a foundation from sinking is not sought so much as the securing of an even settlement of the foundation as a whole in order that there will be no local sinking of a foundation that will dislocate parts of the building structure, but that, if there is any foundation settlement at all, the whole foundation and structure will sink as a whole unit, preventing the structure from getting out of plumb. Where soils are soft, settlement of the whole may require a raft foundation, or a foundation tied together throughout, or column footings may be tied together with concrete and reinforcement to cause the whole weight to act as a unit.

Derrick foundations, on the other hand, consist of four separate and distinct foundations, one for each leg, there being no raft foundations in use; each leg in today's foundation practice, must have its own base foundation, firm, rigid, solid, if the load is to be divided equally between all four legs, in order that the derrick may develop its full rated strength under load.

That raft foundations will come into use will be conceded, especially in deep wells drilled with powerful equipment.

A derrick foundation, proportioned correctly, and constructed correctly, costs such a small fraction of the amounts expended for derricks and for drilling, and affords so much satisfaction in the way of safety for men and property, that there should never be any objection to doing the job of foundation work right.

The greatest usual load on derrick foundations is that from live load—handling pipe and casing; the greatest unusual load is that from pulling on frozen pipe or casing and, as these two impose more load on foundations than dead loads, this paper on foundations is written with the view to fixing definite foundation proportions for definite work, with the idea that a properly laid foundation enables the derrick legs and other members to develop their maximum strength and useful life, making drilling operations safer for employees and lowering drilling costs as well.

Foundations may seem to be of less importance than justified by the length of this paper on derrick foundations, but, the truth of unequal leg loading set up by poor foundation work can be verified in practically any derrick today. Lifting jacks of the ratchet type will elevate a given load with a given weight on the lever arm; just apply a jack to lift the four legs of the derrick, using weights on the lever arm instead of men, and the difference in leg loadings can be obtained quickly.

The usual manner of treating loads on foundations is to divide such loads into dead and live loads, and to multiply the live loads by such factors as will enable live loads to be treated as dead loads. Dead load consists of the weight of foundation and derrick, and dead load is also termed static load. Live load is the weight of operating machinery, wind loads, and loads set up by hoisting pipe, casing, and by pulling with the lines and blocks. Live load is also termed dynamic load.

Loads

In rotary work, live loads from operating machinery consist of draw works, pumps, crown block; live loads from hoisting consist of the weights of drill pipe, casing, kelly joint, lines, swivel, hook, travelling block, elevators, and so on; and live loads from pulling are those set up by straining to lift frozen pipe and casing.

The writer has divided all loads as follows:

1. Dead loads.
2. Live loads—operating machinery;
3. Live loads—weights lifted; termed loads with impact;
4. Live loads—pulling.

All of these loads possess impact, but to distinguish between the different kinds of impact, the foregoing is adopted.

To convert these classes of load into

their equivalent dead loads, for foundation proportions, the following factors are added:

1. Dead loads X1
2. Live loads X2
3. Loads with impact X4
4. Loads of pulling X1½

Of course, these vary in practice. For instance, the twin cylinder steam engine, with practically no flywheel effect, applies load without the inertia impact of flywheels of single cylinder engines, hence the twin cylinder engine is safer for a given pull, although these are usually more powerful than single cylinder engines.

Advantages of Wood and Steel

Wooden derricks are not as rigid as steel derricks. This is the only advantage in wooden derricks; they are not rigid structures, consequently are fairly flexible as to the legs settling into place down on all four foundations and again taking up an equal part of the load, although some time may be required for the four legs to bear evenly on all four footings, and the derrick is materially weaker until the structure adjusts to a lowered corner. Repeated working of the structure, by alternate loading, settles the derrick into place again and a pull on pipe or casing can buckle a leg more readily if taken immediately after a corner sinks than if deferred until the structure has become solidly placed on the foundation again.

If there is a soft corner, a pull can sink that corner and damage the derrick more than any other contributory cause. Immediately after a rain, ground may be softened at the most likely corner of the derrick and derrick failure set up.

Steel Derricks

Steel derricks are far more rigid than wooden derricks, and require a more solid and rigid foundation than wooden derricks. The rigidity of structural steel derricks is indicated by the fact that if the corner bearing plates are not at the same level, or one corner is one-half of an inch lower than another, the structure is thrown out of plumb and the members out of alignment, so much that the bolt holes will not match, making it necessary to jack the lower corner up to continue the erection of the derrick.

Rigidity adds to strength, making steel derricks an advantage from this standpoint, provided the foundations are firm. In a framed structure, such as a derrick, of steel or wood, rigidity is a requisite for the development of maximum full strength.

And, when one corner of a steel derrick is jacked up, additional steel plates, thin steel, with holes for foundation bolts, should be inserted to leave the derrick leg in correct position. The habit of setting the leg on a jack until the derrick is erected, then taking the jack out, allowing the leg to sink, destroys considerable rigidity, misaligns the members, loads the two adjoining legs excessively and is a slovenly method of derrick erection, leading to derrick failure.

Maximum Loading

The maximum loading on a foundation is that set up by pulling frozen pipe, and the parting strength of pipe, plus the weight of pipe are taken as the basis of computing possible load.

One method of computing this is to ascertain the pulling capacity of the draw works, with eleven lines, or nine lines and two luff lines, and another is to use the pulling out strength of drill pipe and casing.

With a line pull of 20,000 pounds, and eleven lines, a pulling load of 220,000 pounds can be placed on the foundation with a steady, slowly applied pull and more with a sudden pull. Professor H. A. Thomas, of the Carnegie Institute of Technology, Pittsburgh, gives the pulling out strength of 6⅝-inch ten thread 30 pound Standard Seamless casing at 448,000 pounds and of 8¼-inch ten thread 43 pound casing at 623,000 pounds. These loads are so excessively great that they should never be started by pulling, but preferably with hydraulic jacks, and will not be considered as part of the duty of a derrick foundation, for even though the foundation might be made sufficiently large to support such loads, the derrick invariably fails.

But it is frequently necessary to take a pull on four inch drill pipe quickly before jacks could be brought onto the job and placed, and the maximum load due to line pull should be considered in proportioning foundations.

Character of Loads

Dead load imposes only the weight of such load and may be taken at its exact value. This load is also termed static load.

Live load or the load of operating machinery, must be considered in another manner, owing to the vibration and shock of this class of load. Live load is treated on the basis of doubling the weight and then treating it as dead load. Thus, with a live load of 43,000 pounds on a 112 foot derrick, 86,000 pounds would be considered as the amount necessary for which foundation must be furnished.

Impact loads are treated in still another manner. A suddenly applied load can increase the weight on a foundation by four or more times. Fortunately, when pipe is started upward by hoisting, or is stopped in its descent quickly, the wire line being elastic prolongs the time of acceleration or deceleration at the instant of most load, relieving the foundation materially. Long strings of pipe and casing are handled more slowly and carefully than short strings.

A usable rule, formulated from experiment, by John Goodman, Experiment Station, University of Illinois, termed Goodman's "dynamic" rule, is: add to the maximum load, the difference between maximum and minimum loads and treat the sum as static load." This rule involves the computation of mass acceleration and impact, and the speed of ascent or descent, and the time of acceleration and deceleration must also be obtained.

Line pull, from drum to crown block, a force usually contained within the derrick structure, may resolve into foundation load when the pull upward is offset by the weight of machinery to which the line is affixed.

For foundation purposes, the writer divides the loads to be supported by the derrick foundation:

Dead load, or the weight of stationary parts, such as the derrick;

Live loads, here restricted to operating machinery;

Impact loads, restricted to weight and impact of parts of equipment hoisted and lowered, including casing;

Pulling loads, or the loads set up by pulling on a frozen string of pipe or casing.

Dead Load

The derrick forms the largest dead load and, as wooden derricks are much heavier than steel derricks of the same capacity, wooden derricks are used for illustration.

Timber as used in derricks is full sized; when timber is green, the weight can be more than four pounds per board foot.

Live Load

Live load is here restricted to operating machinery, as distinguished from the live loads of hoisting and lowering. The weight of operating machinery sets up vibration and intermittent loads upon foundations that must be treated in a more careful manner than dead loads. For building purposes, a structural engineer adds fifty per cent to the live load stresses to cover impact. A familiar example of live load stress producing impact is that of a locomotive running over a bridge, the stresses set up by this having been carefully measured and resolved into formula by the American Railway Engineering Association.

The speed of the locomotive is one of the factors producing impact; the weight imposed by the locomotive running onto and across the bridge may be fifty per cent greater, or even more than the weight of locomotive, due to speed and resulting impact of sudden load application to the bridge.

Live load stresses are difficult of measurement and the writer has adopted a factor of 100% to be added to the weight of operating machinery, to treat this weight as static load.

Impact Loads

The most variable and most difficult load to calculate on derrick foundations is that of impact, set up by hoisting pipe, casing and tools, or by stopping these in their descent. The loads of impact from hoisting and lowering weights are so different and variable from the loads of operating machinery

that the writer has separated live loads, under which both properly are classed, into live loads of operating machinery and live, or impact loads of hoisted and lowered loads, for the latter loads are far greater than the former.

Impact loads consist of the weight of hoisted or lowered equipment, plus the additional load set up by acceleration and deceleration, or starting and stopping. When a string of pipe is suspended stationarily from the blocks, the weight is definitely that of the pipe, but, when the pipe is hoisted, there is additional weight set up, on the blocks and derrick foundation, due to starting the weight upward, and this additional weight depends upon the time and distance required to start the pipe upward into full hoisting speed. If the load on the blocks is started up quickly, the load on the foundation may rise to four or five times the weight of pipe hoisted; when the load is started upward slowly, the additional load of impact is materially reduced, although the hoisting speed ultimately reached may be the same.

Conversely, when the string is lowered, and is brought to a sudden stop, the load on the derrick foundation is multiplied, while, if the load is brought to a gradual stop, and slowly, the foundation is relieved of much load.

The calculation of additional loads from impact leads us into the highest mathematics and, as the editor of this journal limits the writer to things that may be used every day in the field, no calculations of impact loads are included.

But, for illustration. If a string of pipe is lowered at the rate of fifty feet per second, and stopped within five feet, the load is far greater than if the pipe were stopped within a distance of ten feet. If the engine is running at full speed when the lines pick up the load, impact is increased materially. While starting and stopping loads quickly, lops off seconds, still the practice does not lead to safety and, in addition, if we go after seconds, there are many other places where more time can be lopped off with greater safety.

When heavy weights are handled, however, more lines are strung up, giving the brakes a longer period of action, with greater smoothness, when applied carefully. For instance, stopping the load within ten feet, with five lines; fifty feet of line is reeled off to stop the load. Stopping the load within ten feet with nine lines, ninety feet of line is reeled off to stop the load. Under the latter conditions, the brakes give a smoother action and the derrick foundations are relieved materially.

The writer made an error once, along these lines, in The OIL WEEKLY, and this is an admission of the error to those who observed the same.

Pulling Loads

A line pull is magnified by backing the engine up and running the flywheel energy against the load, setting up impact. Each wire line strung up increases the load on derrick and foundation by the amount of single line pull. A single line from drum over crown block and down to the load, requires a pull equal to the weight of load, plus friction, hence the weight imposed on the derrick water table is that of the load, plus the single line pull. If the load is 15,000 pounds, then the line pull must be an equal amount; friction is not included in these calculations for clarity in exposition.

Now, in the same case, if the weight of drum is greater than 15,000 pounds, the line pull on the drum is not an addition to the foundation load, although it is an addition to the derrick legs. But, if the weight of drum and its attachments, is such that the line pull can lift the drum, then this weight is transferred to the foundation, hence, the writer has added in line pull as a load on foundation.

Single line pull is not of material importance by itself, but when all the factors of load on foundation are included, the sum of all loads mounts into surprising figures.

With a working load on wire lines equal to that fixed as a limit by the manufacturers of such, the loads hoisted or pulled are computed easily, but the stress on a single line is that of the pulling capacity of the draw works drum. The writer has taken the single line pull at 15,000, 20,000 and 25,000 pounds for equipment used under 96, 112 and 130 foot derricks. Heavier equipment may be used under 112 foot derricks than 130, but following out derrick height to depth of hole, depth increases working loads and these loadings are arbitrarily assumed as increasing with derrick height, for want of a better method of classification.

The working stresses on wire ropes, together with breaking loads, using the best alloy steel rope, are as follows:

Size	Working load tons	Breaking loads tons
¼"	5.3	26.3
⅜"	7	35
1"	9	45

These working loads are not applicable for obtaining the loadings on derrick foundations, or even the loadings for pull of the travelling block, for working loads are frequently and most generally exceeded in practice.

Single Line Pull

But, single line pull is a measure of loading, and it is discussed below.

If the line goes from drum up to crown block, thence down travelling block, and up to crown block, and back again to travelling block, there are only three lines that shorten. Lines that shorten are the only lines that multiply load, hence the line from drum to crown block is not numbered. Also, when the line is clamped to a derrick leg at its free end, or when the free end is fixed to the shaft, as when a combination rig is used, California style, this line does not shorten, and is not included either.

For convenience, pull of the hook resulting from various numbers of lines and line pull, is tabulated below:

Number of lines that shorten	Single Line pull 15,000 lbs. 96 Ft. Derrick	Single Line pull 20,000 lbs. 112 Ft. Derrick	Single Line pull 25,000 lbs. 130 Ft. Derrick
2	30,000	40,000	50,000
3	45,000	60,000	75,000
4	60,000	80,000	100,000
5	75,000	100,000	125,000
6	90,000	120,000	150,000
7	105,000	140,000	175,000
8	120,000	160,000	200,000
9	135,000	180,000	225,000
10	150,000	200,000	250,000
11	165,000	220,000	275,000

And, when a bull hitch is used, with an auxiliary support for the free end of the hitch, pull of the hook may be doubled, trebled, or increased in the same manner, depending upon the number of lines strung up for the bull hitch, but bull hitch pull does not increase the loading on the derrick foundation.

As noted before, since the single line pull can be resolved into the foundation, then single line pull should be added to the above hook pulls, for obtaining the totals of weights imposed on the foundation.

The weights of maximum strings of casing are included, but, since these are larger than maximum hook pulls as shown above, hook pulls rather than casing weights are used for proportioning foundation areas.

Windage is a source of additional load on foundations, adding both dead and live load. A quartering wind can throw the entire weight of derrick on the leeward leg; the writer has had a wind blowing squarely against the side of the derrick to lift the two windward legs entirely off the foundation, with 1700 feet of 15 pound drill pipe suspended from the crown block, placing the whole weight of derrick and pipe on the two leeward leg foundations, and an additional load was also present due to the guy wires resolving a portion of the force of wind into the foundation.

Resolution of the force of wind and guy wires load into foundation can place more load on the foundation than the weight of derrick.

Windage loads are proportional to the surface exposed to wind pressure and, as steel derricks expose less surface than wooden derricks, steel derricks present less foundation load from this cause.

To Be Continued

PERSONAL MENTION-MEN YOU KNOW

Henry J. Morgan, Jr., formerly of Wichita Falls, has completed a geological course at the University of Oklahoma and is now employed by the Huasteca Petroleum Company, at Tampico, as assistant to Mr. Sidwell, chief of subsurface work.

Col. A. E. Humphrey, president of the Humphrey Oil Corporation, is visiting the company headquarters at Houston this week. He is just down from Denver where he maintains an executive office for the company.

Dawson H. Davis, who for the past four and one-half years has been connected with the Texas Pacific Coal and Oil Company, has resigned his position with that firm to enter the practice of law to specialize in oil, gas and mining litigation. He has been connected with the industry since 1917 during which time he was for three years with the Gulf Production Company. He has become a member of the firm of McConnell, Johnson, Davis, Moore and Lindsey, with offices in the Holmes Building, Fort Worth.

Captain J. F. Lucey of the Lucey Petroleum Corporation of Dallas and chairman of the standardization committee for the American Petroleum Institute, is paying Houston and other Gulf Coast points a visit this week.

W. B. Sutton, head of the land department, and Dilworth Hager, head of the geological department of the Vacuum Oil Company, Houston, are spending two weeks in the New York office of the company.

William Reid, Jr., has recently become a member of the Humble Oil & Refining Company's geological department. Reid comes to the Humble from the geological department of the Atlantic Refining Company, headquarters at Philadelphia. He is a graduate in geology from Union College, Schenectady, New York, in the class of 1924.

P. J. McNamara, superintendent for the Magnolia Pipe Line Company, has been transferred from the Corsicana district, to Amarillo, Texas, where Magnolia is creating a new district in connection with its entry into the Texas Panhandle as a crude buyer.

F. RAY McGREW

Announcement was made here last week of the election of F. Ray McGrew, of Shreveport, to the presidency of the Standard Pipe Line Company, Inc., at a meeting of the board of directors held in Baton Rouge on Thursday, February 18. McGrew, who was made Vice-President and General Manager of the pipe line company at its organization in 1923, succeeds D. R. Weller, who recently became a director of the Standard Oil Company (New Jersey.) His career in the oil business was begun in West Virginia in 1897, although he migrated to Texas during the Spindle Top boom in 1903. He remained in the Coastal fields for six years, during which time he participated in the development campaigns at Sour Lake, Saratoga, Batson, and Humble before moving to North Louisiana in 1909. He entered the Caddo Field as a pipe line foreman; and was later promoted as Assistant Superintendent and Superintendent of the Pipe Line Department of the Standard Oil Company of Louisiana

J. H. Parker, vice president of the Carpenter Steel Company, Reading, Pa., will arrive in Houston this week for a brief visit.

Carl Russ, chief clerk for the Gulf Production Company, Houston, was out of his office several days last week due to an attack of influenza.

J. Edgar Pew, vice-president of the Sun Oil Company and president of the Beacon-Sun Oil Company, accompanied by Dr. F. H. Lahee, chief geologist, departed from Dallas headquarters for an inspection tour of the company's oil producing properties in Venezuela.

M. G. Voigt, manager of the machinery department of the Alamo Iron Works of San Antonio, Texas, was in Houston last week. Mr. Voigt came over to see John W. Lawson, manager of the Alamo Steel & Supply Company, which is affiliated with the Alamo Iron Works. Lawson came to Houston four years ago, weighing 140 pounds and now weighs 180 pounds. His friends are trying to figure out how much he will weigh if he stays here twenty-five years longer.

To Head Engineers

New officers of the Petroleum Division of the American Institute of Mining and Metallurgical Engineers for 1926.

F. Julius Fohs, Chairman, (Consulting Oil Geologist, New York City, Vice-President, Humphreys Corporation). Charles H. Osmond, Vice-Chairman for Refinery Engineering, (Crandall & Osmond, Consulting Engineers, New York City). T. E. Swigart, Vice-Chairman for Production Engineering, (Production Engineer for the Shell Company of California, Los Angeles, California). Douglas S. Bushnell, Vice-Chairman for Transportation Engineering, (President, Buckeye Pipe Line Company, and New York Transit Company, New York City). James H. Gardner, Vice-Chairman for Production, (President, Gardner Petroleum Company, Tulsa, Oklahoma). Joseph E. Pogue, Vice-Chairman for Economics, (Consulting Engineer, New York City). Cresap P. Watson, Secretary, (Assistant to President, Amerada Petroleum Corporation, New York City).

John Sealy Dies

THE industry mourns the passing of John Sealy, who died February 19 in the American Hospital at Neuilly, France, following a brief illness of pleurisy and pneumonia which resulted in an attack of influenza while he was in Naples, Italy, on a round-the-world voyage.

Mr. Sealy founded the Magnolia Petroleum Company, was its president for more than 20 years and chairman of its board of directors at the time of his death. Since the organization of the company under the name of John Sealy & Company he has been the guiding spirit that brought the organization from its infancy to one of the well known companies in the petroleum world.

General knowledge of Mr. Sealy's valuable services to the oil industry and to the country at large is greatly limited due to his reticence and conservatism. Since the beginning of his early business career in Galveston, his native city, he has been the unannounced benefactor in aiding any good cause for the public or the individual. Aside from his great success as a builder in the oil industry, he ranked among the foremost bankers, capitalists and philanthropists of Texas and the South.

In his work with the Magnolia Petroleum Company Mr. Sealy realized his chief aim long before his death. His one ambition in building this company was that of bringing it to the position it now holds among the great organizations through simple methods as one big family woven around a central executive and advisory machine. The Beaumont headquarters of the Magnolia is the direct result today of just such an aim. Strikes and discord are unknown with the Magnolia organization at Beaumont. An expression of discontent is practically unknown among the workmen of the company. The plainest of workmen from the floors of the refinery to the executives' desks are satisfied workers as a result of the plans of John Sealy at the very inception of the company. Parks and club houses for amusement and recreation for employes of the company are among the details in the plans outlined by Mr. Sealy during the early years of the company. Commissaries in which employes buy goods at barely above cost is another of the factors of the Magnolia Company at the Beaumont headquarters which has resulted in much satisfaction in the lives of the company workers.

Mr. Sealy was a man who believed in simplicity. He was a lover of work and action. His rise to great means and business power never altered his office hours, and at the age of 59 when he left his home for the proposed world tour he was the first in his office in the morning and among the last to leave in the afternoon. His early morning walks of four and five miles along the Galveston water front are remembered by his thousands of friends in his home town. He led an active life throughout, and was familiar even to detail with all of the various enterprises with which he was connected.

Kindness was one of the outstanding characteristics of Mr. Sealy. He made no difference in the business status of men. He was known as one of the most approachable men in his business circles. He heard the most trivial request, and no deserving person was ever known to leave his office without being gratified. Such were many of the remarks of the life long friends of Mr. Sealy who consented to briefly discuss his business past. He knew his workmen personally and was interested in their welfare. He is described as being extremely fond of talking with them concerning both business and personal affairs.

JOHN SEALY

Flags in the little island city dropped to half mast when the cable announced his death, to remain at half mast until after interment, which, according to plans, will be held in Galveston, Saturday, March 6.

William Kennedy

Fort Worth, Texas.—William Kennedy, 67, chief geologist for the Lone Star Gas Company, died February 23, at his residence in Fort Worth, and burial will be made at Austin, Texas. Kennedy was one of the early pioneers of geology on Gulf Coast salt domes, and has contributed many valuable papers pertaining to domes. He was born and educated in Scotland, and was with the Arkansas Geological Survey, prior to coming to Texas in 1890.

Ask Appeal Court Ruling

Washington, D. C.—The District Court of Appeals has been asked to rule upon the recent decision of the District Supreme Court sustaining the validity of conspiracy indictments against former Secretary of the Interior Fall and Edward L. Doheny, growing out of the leasing of the Elk Hills Naval Oil Reserve. The appellate court is asked to make a ruling on the points involved in advance of the trial in order to save time.

It is contended that the Supreme Court, in upholding the validity of the indictment, extended the scope of the latest conspiracy section of the United States Supreme Court which has generally been regarded as limiting the scope of a conspiracy to defraud, and that the court, after having called upon counsel for the defense for briefs on five important questions of law, failed to dispose of or discuss them in its decision.

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A Set of 5½-inch "OILWELL" Drilling Jars, with 2¾" x 3¾" joints, in Poland. These jars were used from October 7, 1924 until April 15, 1925, in both drilling and underreaming, and after more than six months of continuous service and having been used in drilling and underreaming more than 2,300 feet of hole, were still in good condition.

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Lufkin Pump Units are built in two sizes—
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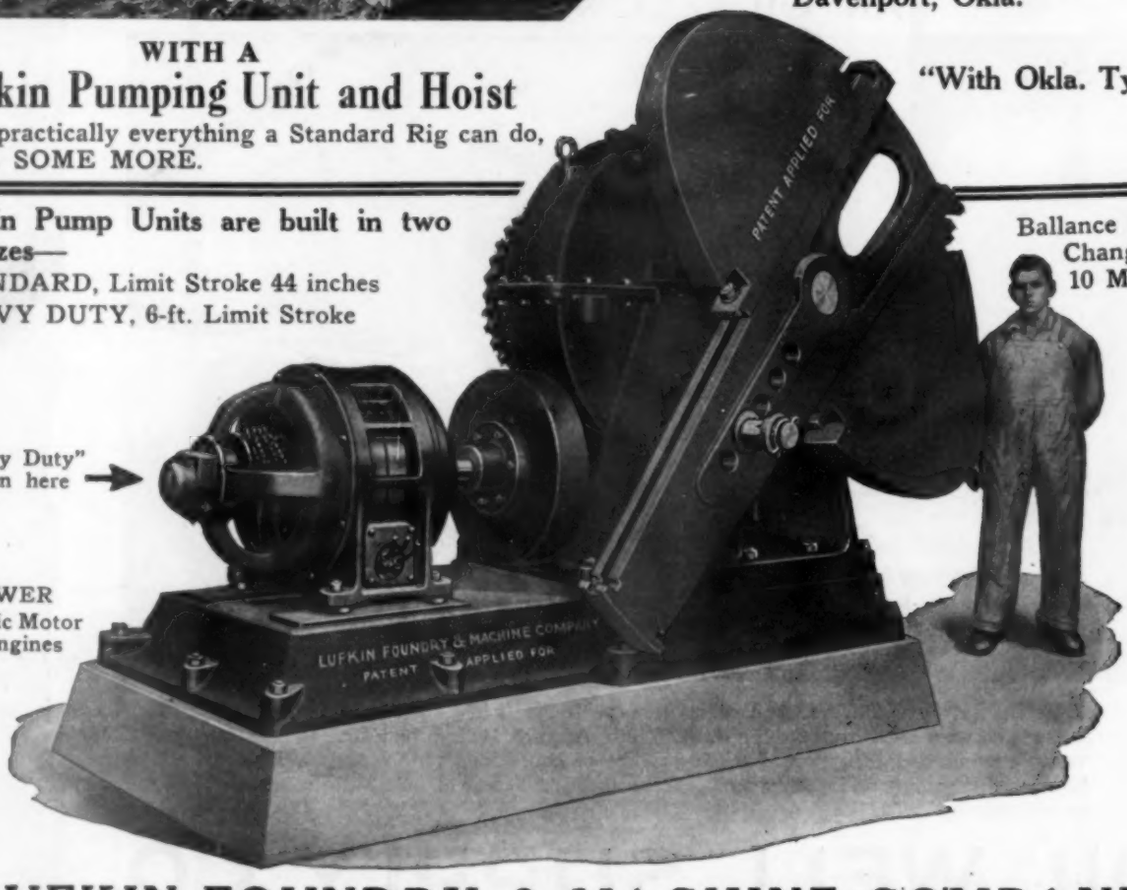

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Engineers Devote Time to Study of Economics at New York

Community Oil Lease is suggested as solution to present leasing troubles

A CLOSER study of economic factors governing the industry and a wider application of the knowledge thus gained in conducting their business is receiving increasing consideration from operators. As the industry approaches a more scientific basis of operation it is beginning to appreciate the value of a look into the future as well as a picture of the past offered through proper economic research.

It is only recently that the industry has focused attention to any great extent on the various economic studies which have for many years played a very important part in other industries. Many operations are still backward in availing themselves of the valuable knowledge which comes from the proper compilation of operating statistics.

However, while only young in the oil industry this business science has progressed rapidly and when the subject of Petroleum Economics came up for discussion before the Petroleum Division at the annual meeting of the American Institute of Mining and Metallurgical Engineers, Inc., in New York February 15-16, it was greeted with widespread interest.

Discussions at the meeting ranged from the economic aspect of the community lease in development work to the problems of forecasting crude production. The many helpful suggestions made in the papers presented evidenced the time now being given to research of this type in the oil industry.

Trend of Prices

In bringing his work of preparing index numbers representing the trend of prices of crude petrodeum and its principal derivatives down to date, Joseph E. Pogue of New York shows in his paper presented at the New York meeting that oil prices averaged higher in 1925 than in 1924 with the following changes on the average:

Crude petroleum	= + 7%
Gasoline	= + 4%
Kerosene	= — 4%
Fuel oil	= + 8%
Lubricating oils	= + 14%

Mr. Pogue's compilation further shows that the trends of crude oil, fuel oil, and lubricating oil prices have been upward since 1923 while the trend of gasoline has been downward from 1920 to 1925, but showing a slight tendency toward reversal in 1925.

The price of gasoline, relative to commodity prices in general is very low according to Mr. Pogue, averaging 67 per cent of the general price level in 1923.

The accompanying charts graphically present these price trends:

Present Situation

In his talk on Petroleum Statistics and the Economic Situation, Arthur Knapp, Philadelphia, said that the economic situation in general has been characterized by the absence of changes in trends during 1925. Changes in the rates of increase of total consumption and total liquid stocks are not apparent, says this statistician.

In discussing production during 1925 Mr. Knapp stated: "While there have been changes in the production of the various fields, pools and districts, still the total production of the United States shows only slight variations from month to month.

"In 1923, the peak of monthly production was 132 per cent of the low month: in 1924 the high month was 110 per cent of the low and in 1925, the high month was 126 per cent of the low. These fluctuations would have been less but for the seasonal influence of drilling. The number of producing wells, completed monthly, fluctuated 100 per cent in 1923, 130 per cent in 1924 and 100 per cent in 1925,

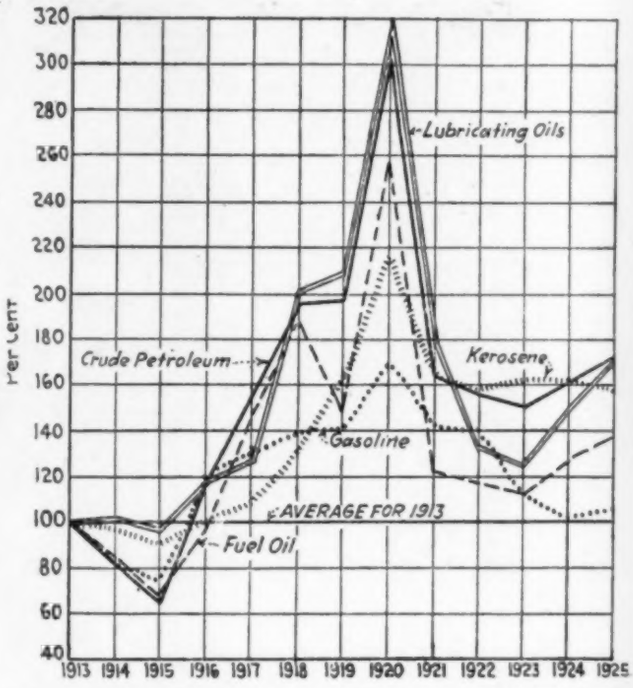


Fig. 1.—Trend of the relative prices of mineral oils in the United States by years, 1913-1925, in percentages of the average prices in 1913. (Average prices in 1913=100)

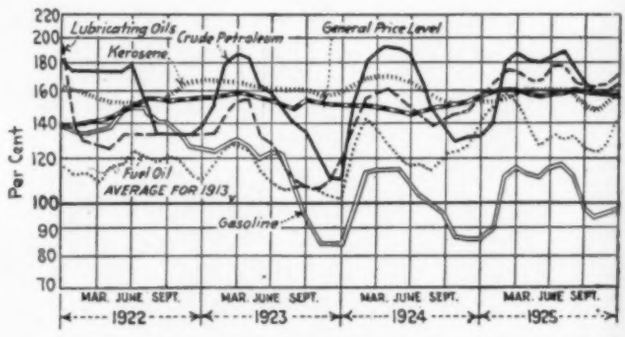


Fig. 2.—Trend of the relative prices of mineral oils in the United States by months, 1922-1925, in percentages of the average prices in 1913. (Average prices in 1913=100)

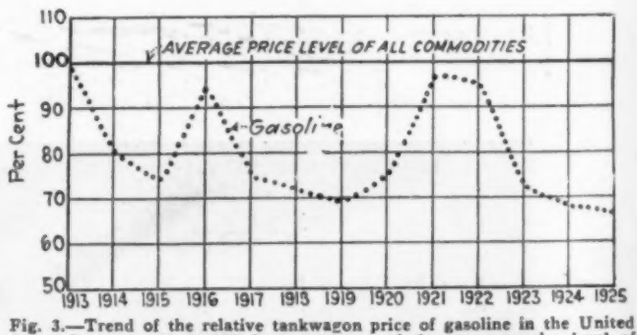
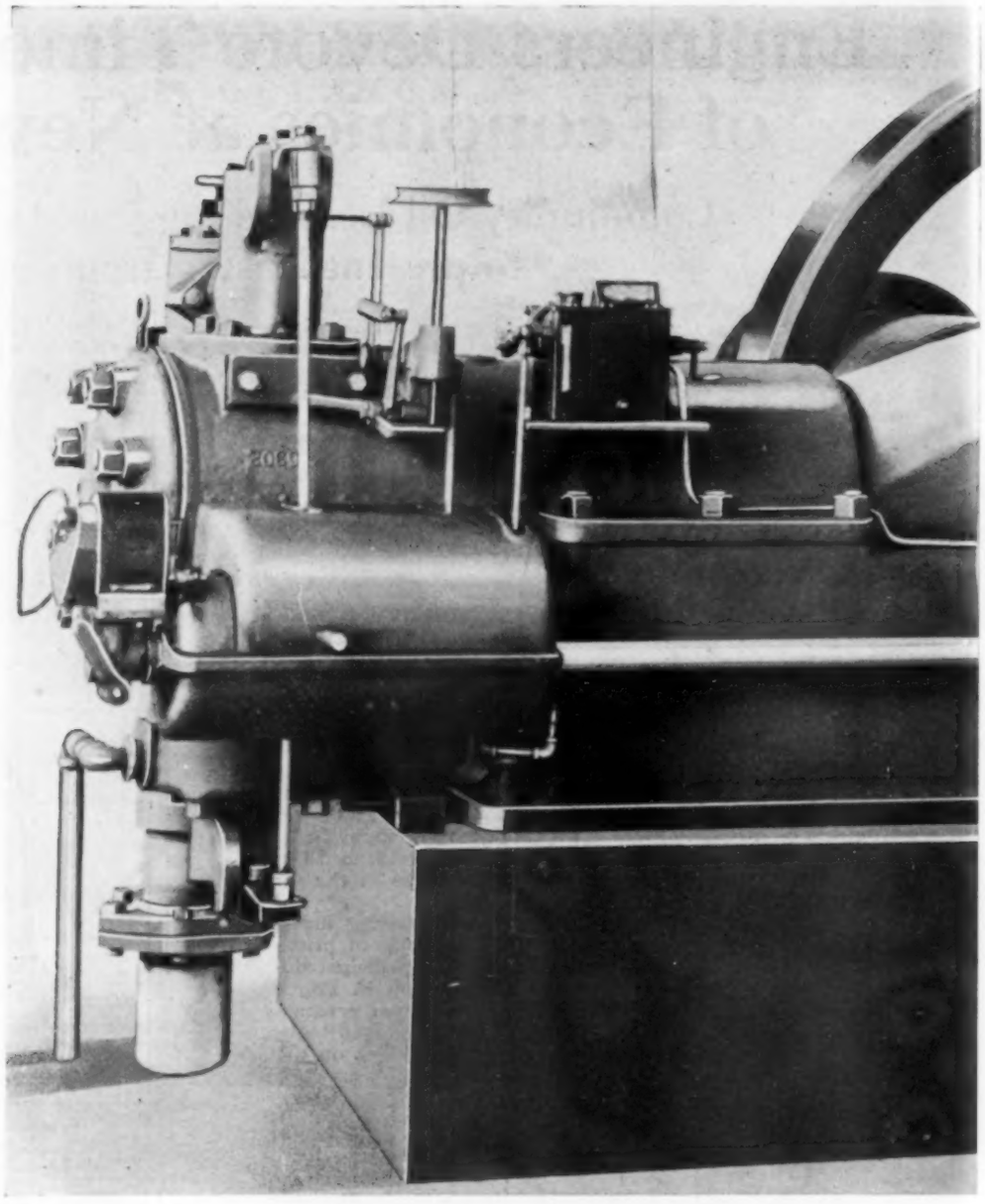


Fig. 3.—Trend of the relative tankwagon price of gasoline in the United States by years, 1913-1925, in percentages of the average price level of all commodities. (All-commodity price level = 100)



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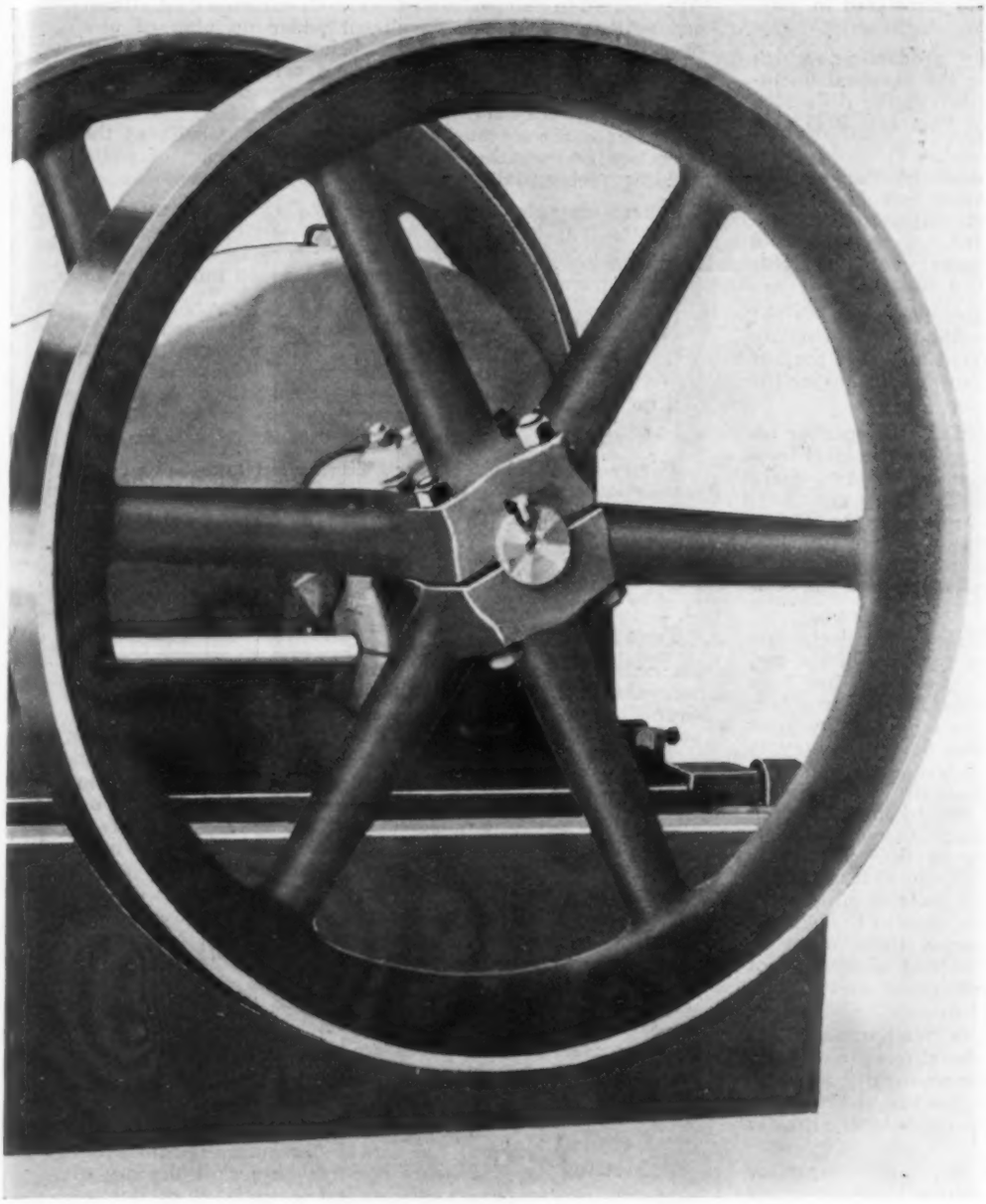

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that is, there were twice as many wells completed in July, 1925, as there were in January, 1925.

"If the proportion of the monthly production, which came from new wells, is corrected for the seasonal fluctuations in the number of new wells, it brings the difference between the high and low months of 1924 and 1925 production to within 5 per cent."

Community Oil Lease

Forgetting for a moment the statistical angle of economics, Fay L. Wright, Chief Geologist of the Superior Oil Company of California, led a very interesting discussion with a paper on Some Economic Aspects of the Community Oil Lease.

In reviewing the development of the oil lease Mr. Wright pointed out that this particular method of procedure in the industry had been sadly neglected and that present leasing systems are responsible for many of the major ills of the industry today.

In offering a solution of this situation, the speaker referred to a very good example of attempting the ideal leasing that has been accomplished within the last two years by the Union Oil Company of California. This company, after bringing in a large gasser on the Wellington Dome in Colorado, conceived the idea of using a community plan of development which would eliminate much wasteful offset drilling and insure for the landowners involved a fair distribution of royalties.

"This plan was unique in that it adopted an entirely new method for putting all interests on an equitable basis, and was put into operation even after the entire dome had been leased on individual leases. The outline of the structure had been contoured rather closely by surface geology prior to the discovery of the gas so all that was necessary to place the plan in operation was to choose a contour line, which was considered to be the limit of probable production. All lands within this line was unified under a community lease, while those lands situated outside were left under their original leases. The key to the plan lay in working out a unit basis in which the individual lease owner acquired an interest in the community lease in proportion to the ratio of the acreage in the single lease to the acreage in the community lease. The land owner then would receive royalty on his tract of land regardless of whether or not a well had been drilled upon it, provided royalties were due under the community lease.

"There are many advantages to the Wellington Dome plan of operation among which are the elimination of unnecessary offset drilling, simplification of royalty accounting and the saving of gas pressure on the top of the dome, bringing about a more economical and undoubtedly greater ultimate recovery of oil.

Comparison of Methods

Mr. Wright also drew a comparison of the development of the Dominguez and Rosecrans-Athens fields in California. The Dominguez field was discovered during September, 1923, by the Union Oil Company of California and to January 1, 1926, had produced a total of 20,299,599 barrels of oil from 73 wells, an average of 278,076 barrels per well. In this field there are 600 acres of land considered proved, with a well spacing of about one well to 10 acres. The field was producing at the rate of 24,454 barrels per day from 59 wells on January 1, 1926, an average of 414 barrels per well per day. The number of dry edge wells drilled in this field to define its limits is 14, and of the number of producers completed, five will probably not pay back their original cost.

"The comparative figures of the Rosecrans-Athens field show a marked difference in the results obtained. This field was discovered during May, 1924, by the Union Oil Company of California and the Barnsdall Oil Company, jointly, and the field has produced to January 1, 1926, a total of 7,800,000 barrels of oil from 133 wells, an average of 58,646 barrels per well. There are 400 acres of land considered as proved as of January 1, 1926, with an average well spacing of one well to 2.5 acres. The field produced 24,443 barrels from 97 wells on January 1, 1926, an average of 252 barrels per well. The number of dry edge wells drilled in this field to define its limits is 34 and of the number of producers above given, a total of 33 will probably not pay back their original cost.

"This comparison shows very obviously that the industry is the loser by many millions in the case of the Rosecrans-Athens field in comparison with the Dominguez field. Rosecrans-Athens field was developed under no plan of unit operation and with few attempts being made for community lease operation although there were several notable community leases in the field, and was a very good example of frenzied town-lot development. Dominguez field represents an example of very business-like development, with all the operators co-operating in the manner of spacing of wells, and in agreeing to develop only one zone at a time.

"These examples are given only to show comparative results, for it is hardly fair to compare merits of these two fields on account of their basic difference in make-up, and because field for field, Dominguez is a much more valuable field than Rosecrans-Athens."

Mr. Wright also told how his company obtained a community lease of several thousand townsite tracts that had their test well proved productive would have saved them many thousands of dollars by eliminating the necessity of drilling offset wells. This particular lease was executed in the Belvedere Bardens area of the Los Angeles Basin.

The speaker ended his discussion by saying: "The community lease plan would probably insure for the land owner as well as for the operator a more equitable price for the oil produced and the evils of over production might have been eliminated. Surely the community lease plan is an improvement over the present individual lease method."

Forecasting Production

The need has long been felt in the industry for some means whereby the trend of future supply could be measured and policies could be formulated to meet or correct a surplus or shortage of crude oil, says J. Melville Sands and C. Campbell Osborn in their paper on "Forecasting Petroleum Production."

According to these economists, mathematicians, geologists and engineers have been trying to solve the problem for many years and their efforts have been helpful, but on account of basically unsound or incomplete methods or the lack of adequate data, few of the estimates have been sufficiently close to production to warrant their use as an element in oil company policies.

According to these speakers the most satisfactory method that they have found in this work is a combination of several former processes with additions and modifications that enable them to use more detailed data than was included in older methods. The estimates are made by pools for only 90 days in advance, and special consideration is given to new discoveries. The pools are divided as follows:

Composite Detailed Method

"1. Fields which have been defined and developed to the extent that production is declining at a relatively slow and uniform rate. The rate of diminution is considered sufficiently uniform to permit the use of pure mathematical projections of decline curves. The authors prefer curves of the exponential type plotted on semi-logarithmic scales. The age at which fields enter this class depends on their character and state of development. Few, if any, however, should be so classified until at least one year after the peak of production has been reached, as the rate of decline cannot be accurately determined prior to this time. The comparatively new fields are estimated separately, but in older districts a composite decline curve may be applied to several pools having common charcteristics.

"2. Flush fields in which development has proceeded to the extent that data are available showing their principal features, notably approximate limits, at least in some directions, character and thickness of sand, gas pressure and initial yield and rate of decline of individual wells. Current detailed information of this character is kept up-to-date on every field and carefully weighed. Projections of decline curves are made for the producing wells. The progress of all wells being drilled is carefully noted and estimates are made of the number of probable completions within the period covered by the forecast. Initial production and decline figures based on the performance of adjoining wells are applied. Weight is given to the action of older fields that have produced under similar conditions.

"3. Fields consisting of one well or of relatively few wells, concerning which there is not sufficient information to determine the areal extent, sand thickness, and drilling program. This is necessarily the most difficult type of pool

to forecast. In it lies the inherent weakness of any known system of estimating. However, a study of the history of oil production by 90-day periods shows that the yield from pools of this type is ordinarily a very small proportion of the total production. Several pools of this class are usually included in the estimates, and the errors are often compensating. Geological information and the action of older pools in the district are helpful. Decline curves on the producing wells are useful, especially when compared with those of other wells in the district.

"Production in all of the three classes of pools described is subject to the effect of weather, work-overs, shooting, deepening, opening or shutting of wells, water encroachment, changing methods of production, conditions of transportation and storage, and price changes. Detailed scouting information is kept up-to-date on these subjects by fields, and are considered when the estimates are made. The striking influence of drilling and price changes on production are shown on the chart.

Results Obtained

"The composite method has been applied by the authors to the solution of the forecasting problem since January, 1925. With the exception of a few weeks the estimates have been within approximately 1 per cent of production. During the weeks mentioned the error was 5 per cent. It was caused by the second sand of the Smackover field, which was discovered in February, 1925, and together with the upper sand attained a peak of 445,000 barrels on May 30, 1925. Only one other pool in the history of the industry has reached a similar peak production. It should be understood that the estimates on which these error figures are calculated were confined to periods ranging from 30 to 90 days. Attempts by the authors to predict for periods of six months by the composite method described have not been successful. The authors' estimate of United States production for the 90-day period, ending December 31, 1925, was an average of 2,038,000 barrels per day."

Importance of Oil Transportation Stressed by Engineers

Advances in producing and refining would be defeated but for progress in handling methods

THE importance of the transportation problem as one of the three leading problems now facing the industry was logically presented before the meeting of the American Institute of Mining and Metallurgical Engineers held in New York February 15-16 by Charles Fitzgerald. In his paper covering the transportation problem Mr. Fitzgerald strictly attempted to discourage the idea long existing that transportation in the oil industry is a factor of any mean proportions, and held it up to be viewed from every angle in an effort to make its value realized.

Transportation lacks the spectacular appeal of production, refining and marketing and it is for this reason chiefly that its importance in the industry has never been generally realized, he brought out, but no matter how large the production of crude oil nor how rapid the advance in refining practice, the great development of the industry could not have occurred without modern transportation methods. When the fact that approximately 150,000,000 metric tons of petroleum were transported in one way or another during 1924 as compared with 65,000,000 tons of pig iron is shown the problem of transportation in the oil industry has to be more fully realized, he stated.

In outlining the transportation problem Mr. Fitzgerald placed pipe lines at the top in importance and then the tank steamer and tank car. Beginning with the least important factor in transportation, the tank car, he gave a general review of each.

Although the cost of moving petroleum in its different grades by tank car is the highest means of transportation and the least used considering the quantity moved, he used this method as a means of illustrating the importance of the transportation problem. While crude oil is transported over railroad tank cars only in some cases such as moving it from districts where production does not jusitfy the expense of pipe lines, in intervals during which a pipe line is being constructed to a new field and tankage erected and during periods of temporary flush production where field storage facilities are inadequate, the bigness of transportation is shown in the fact that 70,000 tank cars are in daily operation in this country. Most of these cars, he showed, were used in transporting refined products. Figures showing movements by pipe line and water would be altogether out of proportion with those of rail movements, his estimates indicated.

Tankers Cheapest

He held up the tank steamer method of transportation as the most reasonable for the industry where such was possible, due to its being the cheapest and most convenient. It is this method of moving petroleum that has linked the countries of the world together in the economic uses of oil products. He named the pipe line as occupying the leading position in the transportation of crude oil from the lease tanks of the producer to refineries and ocean terminals as well as occupying a place at some point in the movement of all crude whether the ultimate delivery to refinery is by pipe line or by tank steamer or by railroad.

During his talk Mr. Fitzgerald followed up the evolution of the pipe line from its first use in Western Pennsylvania in 1865 to the present day when modern lines of all sizes form a web over the producing territories of the United States as well as being introduced rapidly in all of the foreign producing territories.

Further papers read before the New York meeting concerning the problem of transportation of petroleum deal with three problems of vital importance. F. Ray McGrew in his paper on "Corrosion of Pipe Lines and Protective Coverings," J. H. Wiggins talking on "Evaporation in Transportation and Storage of Petroleum and Methods of Prevention," and Nelson B. Delavan in his paper on "An Investigation into the Cause of Breakage in Crude Oil Pipe Line Transportation Systems" presented much interesting material for study before the meeting.

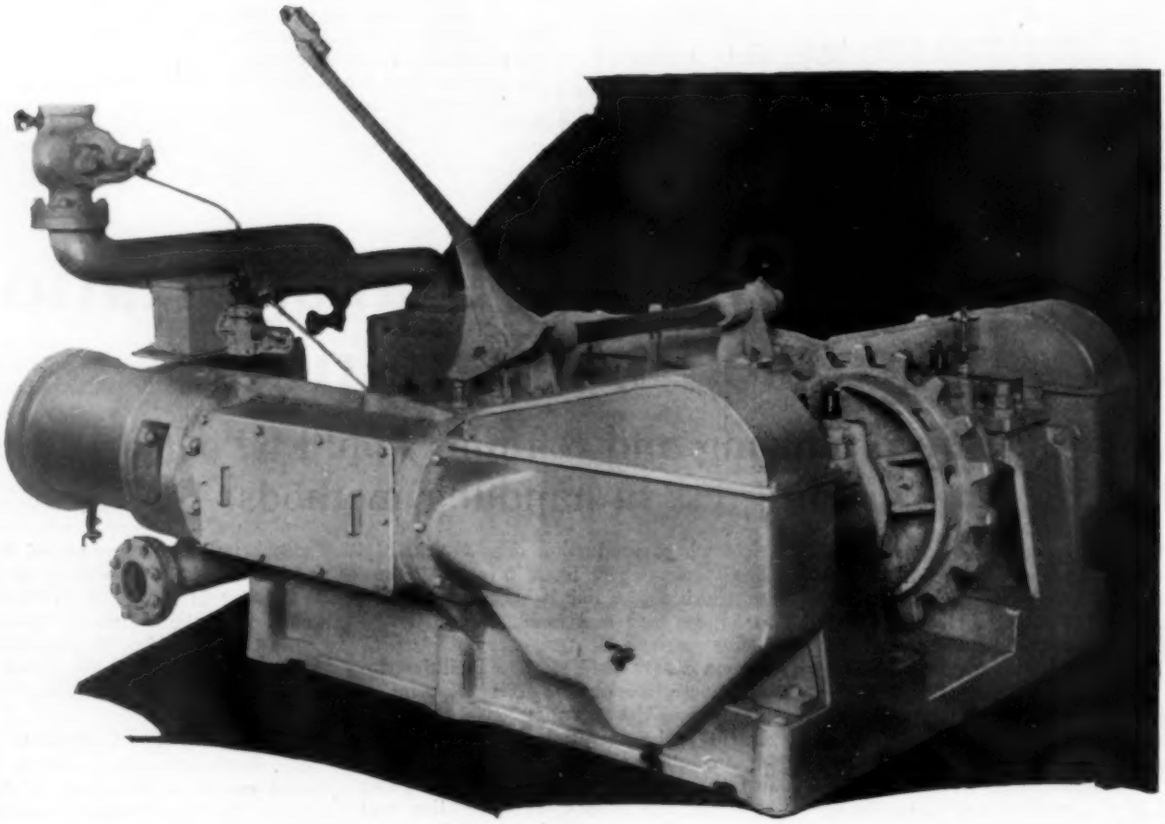
Loss by Corrosion

Mr. McGrew's estimate of the loss due to the corrosion of metals in the industries of the United States to range from $200,000,000 to $350,000,000 per year. Most of this loss, he stressed, is from the use of metals underground. The mistake of the industry today is in the effort to develop a protective for the pipe lines, he believes, saying that we should try to find out how to make a metal that will resist corrosive action rather than wasting our time trying to protect inferior pipe. He named seven years as the life of the average pipe line, not condemning the line as worthless by this time but showing that certain inferior parts of the line would render it useless. As far as the uniform corrosion of pipe is concerned a line would be in use 35 to 40 years after the laying.

According to Mr. McGrew, the only one method of line protection that may be considered absolutely effective is that of encasing the line in a concrete mass. He expressed little faith in the various protective coatings used today. As a final means of overcoming the great problem of corrosion of pipe lines he mentioned the construction of above ground lines, buying the right of way in fee. Such a practice, he brought out, would no doubt leave a large item on the credit side of the ledger.

In this paper on evaporation J. H. Wiggins considered the question from several angles on the causes and prevention of losses by evaporation in working tanks, tank cars and storage. According to his view of the problem it is fairly safe to

The Greatest Drilling Engine Y



The Ideal-Ajax 12x12 Twin With Enclosed Crankcase

In a field test at Stroud, Okla. the new Ideal Ajax 12x12 Twin lifted 49,000 pounds of pipes and tools 200 feet per minute, showing an actual development of over 300 h. p.

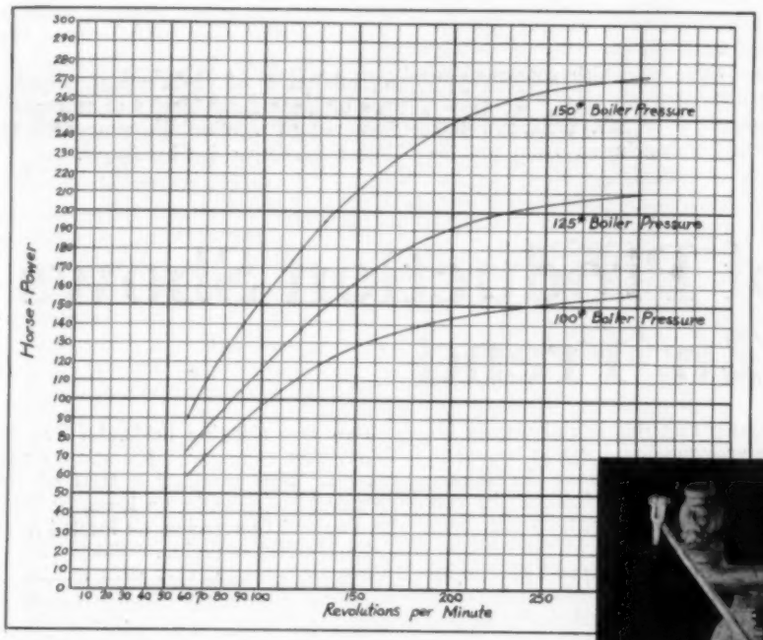
This remarkable performance is enthusiastically greeted by the operators of rotary equipment who have been seeking greater efficiency and greater speed.

The New Ideal Ajax 12x12 is of the same type, side crank construction, two bearings, as the 10x10 engine which has always held the first place in rotary drilling since its introduction. In addition the new engine is the first to introduce the enclosed crankcase. This forward step is a typical Ajax achievement. Crank pins, cross head pin, cross head slipper, main bearing—all important wearing parts are now lubricated with a bath of oil. They are tightly enclosed, no dirt can enter. The life of the engine is lengthened and its efficiency is increased.

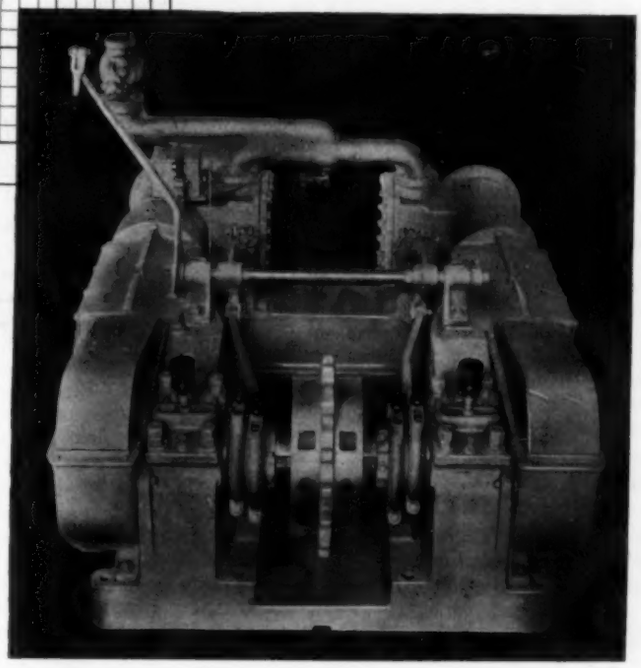
See this engine at branches of the National Supply Company.

IDEAL AJAX D

Yet Built for the Oil Fields



The Ideal Twin 12 x 12 is of typical Ajax construction. Crank Shaft, Crank Pin, Cross Head Pin, Reverse Link Roller and Pin are heat treated and finished ground. Cross Head Guides, in both cylinders, are bored in one operation on a Duplex Boring Mill. Spacing Head is cast separately from cylinders and main frame. No water can enter crankcase.



In a brake test using 150 lbs. boiler pressure, the New Ideal Twin develops 272 h. p. at 300 r. p. m. Operated under the field practice of 200 lbs. boiler pressure its peak would be much greater — ample power for the deepest drilling.

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AJAX DRILLING ENGINES

say that five years hence evaporation loss will have changed from a really vital problem to a perfectly harmless condition, considering the amount of progress that has been made in the past five years.

The fact that trouble from leakage of pump parts, valves, fittings, etc., has been general and a serious handicap during recent years has been fully realized only since 1924, Nelson B. Delavan brought out in his paper covering an investigation into the cause of breakages in crude oil pipe line transportation systems. In his practical investigation Mr. Delavan came to the conclusion of not accepting any special device until it was thoroughly tested. He also found fault with most of the reasons for breakages noted by various operators such a faulty design or weak material, pump cylinders not completely filling with oil and that of air in the pump cylinders. He took up the problem of pressure, valve action in various pump capacities and other points of important consideration in making his experimental work on the lines of several pipe line companies which consented to the experimental work.

The summary of Mr. Delavan's talk shows that his conclusion from the investigation is that the only sure way to eliminate the troubles caused by pressure surges is to equip each pump with an air chamber or good alleviator mounted on the pump discharge manifold where it can absorb the volume changes of all cylinders. One or more vacuum chambers should be placed as close as possible to the pump suction valves. It is important to keep all chambers charged with the proper amount of air. The cost of such cushioning devices is far less than the potential costs of replacements, including loss of income and delays of transportation, not to mention the annoyance and danger accompanying breakages.

Symposium of Production Shows 1926 Trend

IN summarizing the petroleum situation for the year 1925, and commenting on prospects for this year, E. L. DeGolyer speaking before the 133rd meeting of the American Institute of Mining and Metallurgical Engineers, held in New York, February 15-16, stated that the outlook for the present is for a decline in production and withdrawal of oil from storage. He added that the industry's expectations have failed of realization before and may fail again, and called attention to the fact that each year the industry's hopes are defeated by some new potent factor not met before. Last year the industry learned by experience that it could suffer from over-refining at a time when production conditions were fairly satisfactory.

Production in foreign countries in 1925 was generally according to expectations, said Mr. DeGolyer. Venezuelan production increased some 11,000,000 barrels, and Russia, Roumania, Persia, Argentina and Peru showed substantial increases. Mexican output decreased about 25,000,000 barrels.

In Mexico the most important field developments in the Panuco or heavy oil region were a marked drop in the production of the Cacalilao pool, disappointment in the development of the Corcovado pool, the very successful development of the right-of-way of the National Lines and adjoining parts of Ebano and Chapacao, and some success in the development of production in the Hacienda Limon.

In the Tuxpam or light oil region attempts to find the northern or southern extensoins of the San Diego-Alamo ridge were failures. A second ridge, west of the old crest in Tierra Blanco and Cierro Viejo was discovered, however, which resulted in the finding of big gushers and may mean considerable increase in light oil production this year.

Developments in the Isthmus of Tehuantepec brought about successful extensions of the Filisola-Conception pool.

Wildcatting in Mexico during 1925 resulted in 28 wells, about half as many as were drilled the year before. Mr. DeGolyer stated that this is ridiculously inadequate program for a nation hoping to maintain second rank among the oil producing nations. He emphasized the fact that the petroleum and anti-foreign laws now the subject of diplomatic interchange between the United States and Mexico increase the hazards of wildcatting and stand in the way of much badly needed development of that nature.

Russia

Russian production increased 5,688,000 barrels in 1925. Satisfactory progress is being made in field development in that country and through the introduction of modern field methods production is on the upward trend. Pipe lines are now being planned in anticipation of the market for Russian oil which is increasing throughout Europe.

An increase of slightly more than five per cent is shown in the output of Persian fields in 1925. The bulk, if not all of this increase was from flowing wells of the Maidan-i-Naftun and nearby pools. Potential production of proven areas is reported to be far in excess of the oil that could be dealt with at present by existing pipe lines, refineries, tankers and market organizations.

The total increase in the Dutch East Indies in 1925 is estimated at 10 per cent over 1924.

Roumania established a peak for itself in 1925 with a 20 per cent increase over the preceding year, and a total output of 16,100,000 barrels.

Venezuela increased its yield over 1924 by 122 per cent, with a total recovery of 20,000,000 barrels. It was pointed out in a paper given by Edwin B. Hopkins and H. J. Wasson, that remarkable progress has been made in Venezuela within the past three years, and as a result this country now occupies the sixth position on the roster of petroleum producing countries of the world. The big gain in Venezuela during 1925 was due primarily to continued active drilling within the proven fields combined with increased marine transportation facilities.

Two new shipping fields, La Paz and Concepcion, commenced operations during the year thus marking a total of five, namely Mene Grande, La Rosa, El Mene, La Paz and Concepcion, all located in the Lake Maracaibo region.

Exports of crude petroleum were made from the above fields through the port of Maracaibo by the three principal producing and shipping companies, namely Dutch Shell Company, Lago Petroleum Corporation, and Venezuelan Gulf Oil Company. Discovery of the Ambrosia producing area, located about 10 kilometers north of La Rosa field, was the outstanding new development of the year. The discovery well, Lago Marine No. 1, located in the bed of Lake Maracaibo, about three eighths of a mile off shore, showed both oil and gas under high pressure after drilling to a depth of 1378 feet in July. The imoprtance of the area was confirmed in January, 1926, by the completion of two additional wells, the Rodriguez No. 2 of the Gulf, and Ambrosia No. 5, of the Lago, both of which came in around 1500 feet with initial production of 15,000 barrels each. Five more wells are being drilled in this area by the Gulf and Lago companies. The Ambrosia area promises to produce a large amount of oil and should be an important shipping field in 1926.

A considerable number of shallow-draft tankers were added to the fast growing fleets of the Dutch Shell, Lago Petroleum and Transport Company, and the Venezuelan Gulf Oil Corporation. At present there are about 40 of these tankers with a capacity ranging from 6000 to 17,000 barrels each, that are capable of moving about 80,000 barrels of oil per day to the deep-sea transfer points outside of Lake Maracaibo. The Dutch Shell Company and the Gulf Company have under construction in England 11 of the latest type tankers, eight and three respectively, which together with the additional tankers the Lago Company will put into service, could provide for an average move-

(Continued on page 54.)

Domestic Production Will Show Slump This Year

SUMMARIZED reviews of production in the several districts of the United States given by specialists familiar with the districts treated, were still further summarized and illuminated by F. Julius Fohs of New York, before the Petroleum Division of the American Institute of Mining and Metallurgical Engineers, at New York, February 15-16.

Combined figures for the United States show an increase of 59 million barrels in production and little change in imports; almost 47 million barrels greater apparent domestic consumption and greater utility of consumption; and four million barrels less exported in 1925 than in 1924, representing a total apparent increased demand of 42,583,000 barrels.

Forecasting for 1926, Mr. Fohs says that further recovery in Europe will probably mean a greater demand for American oil from foreign sources, while the outlook for production is by him summed up as follows:

Likely to increase production: Gulf Coast and Texas outside of Gulf Coast.

Just maintain or decline somewhat: California and Appalachian.

Apt to decline: Mississippi Valley, Rocky Mountain, Kansas-Oklahoma.

The increases in Texas, Mr. Fohs points out, can hardly overcome the impending losses in other districts, so that the probable total yield for 1926 will show a decline of more than 100 million barrels as compared with 1925. Imports from Mexico and South America will not be greater than for last year, which means that the deficit of production will be made up from domestic storage. It is pointed out that anticipated decrease in Mexico will offset respective increases in South America.

Basis for American decline is found in the circumstance that more than half of 1925 production was from 27 pools which have reached their peak during the last three years, eight of them reaching the peak during 1925. Prediction is made that these pools will decline at least one-third during 1926, as only four of them have prospects of extensions or deep sand production.

California

In their paper "The Petroleum Industry in the California District During 1925," A. C. Gester and E. W. Wagy, of San Francisco, reviewed the record since 1920 when a storage in that district encouraged wildcatting which resulted in the flood of 1923, when the daily average was 633,000 barrels. Late in that year a decline set in, so that at the end of 1924 the production of 606,300 barrels daily about balanced demand. In 1925 California produced approximately 231,000,000 barrels, a daily average of 633,000 barrels. The most important developments were the new Inglewood field, Ventura Avenue deep sand and the Long Beach extension. Work in Inglewood started in January and by the end of July was producing 110,000 barrels daily, since when there has been a decline to around 62,000 barrels daily at the beginning of the present year. Interest in the Ventura field is in its future possibilities. Production in December, 1925, was around 32,000 barrels daily from wells 4000 to 5800 feet deep. Drilling is slow to the great depths of this field and flush yields vary from 200 to 4500 barrels, the oil containing 33 per cent navy gasoline. Interest in Long Beach extension was revived in June and has since been the scene of intensive town-lot drilling.

A feature of the California situation is shut in production, an alternative to adding to storage facilities. At the close of 1925 it was estimated than 63,000 barrels daily production was thus retained.

Oklahoma-Kansas

"Oil development in Oklahoma and Kansas During 1925," was discussed by Burr McWhirt, geologist and valuation engineer, Roxana Petroleum Corporation, Tulsa.

Production of the Oklahoma-Kansas fields is given at 211,500,000 barrels, which is an increase over the previous year. Oklahoma fields showed a decline which was made up by increase in Kansas. Tonkawa, Burbank and Cromwell yielded thirty per cent of Oklahoma's total production, while the Thomas, Garber deep sand, Papoose-Gilcrease and Wewoka pools reached their peaks during 1925. Eighteen new pools were opened in Oklahoma, but only ten were of consequence and only five of special import.

In Kansas only seven of 21 new localities or extensions were of any consequence, of which three or four may prove important. Only two, the Teeter-Pixley-Scott and Rainbow Bend pools, were of major size.

"In Oklahoma," says Mr. McWhirt, in speaking of the outlook for 1925, "Tonkawa is very likely to produce very much less oil in 1926 than it has in 1925. Burbank will probably show a decline, but less, relatively, than Tonkawa. Judging by the recent rates of decline, Burbank should produce more oil in 1926 than Tonkawa. It seems improbable that the known sands in the Garber pool will produce as much oil in 1926 as they did in 1925. Cromwell and Papoose pools seem doomed to further steady decline.

"There is a vast amount of settled production in north-central, northeastern and southwestern Oklahoma that will form a substantial nucleus for 1926 production. New pools are required, constantly, however, to maintain or increase the State's annual production. The required new pools are not now in sight. With the exception of the newly discovered deep sand at Wewoka, the writer can think of no partly developed discoveries that seem likely to become major pools. There are possibilities for substantial new production, both in new areas and by deeper drilling in old areas. There are many possibilities of developing new Wilcox sand pools, by drilling deeper, all the way from Pontotoc County north and northeast of the Kansas line. Kay, Grant, Garfield and Noble counties are potential areas for other Tonkawas and Garbers. Core drills are busy in these counties and may discover some good pools.

"The present declining production and strong crude oil market are almost sure to stimulate a drilling campaign that will test out promising areas and thus open new pools to hold up the 1926 gross production.

"Kansas is starting 1926 off with 20,000 barrels per day more production than she had at the opening of 1925. It seems hardly probable to the writer that the 'shoestring' pool will show as much areal extension, nor as much new production, in 1926 as they have shown in 1925, because there are a number of dry holes scattered along the trend in advance of production. Pay spots between dry holes, and even a change in trend are possible developments. There will be substantial settled production from the old 'shoestring' area.

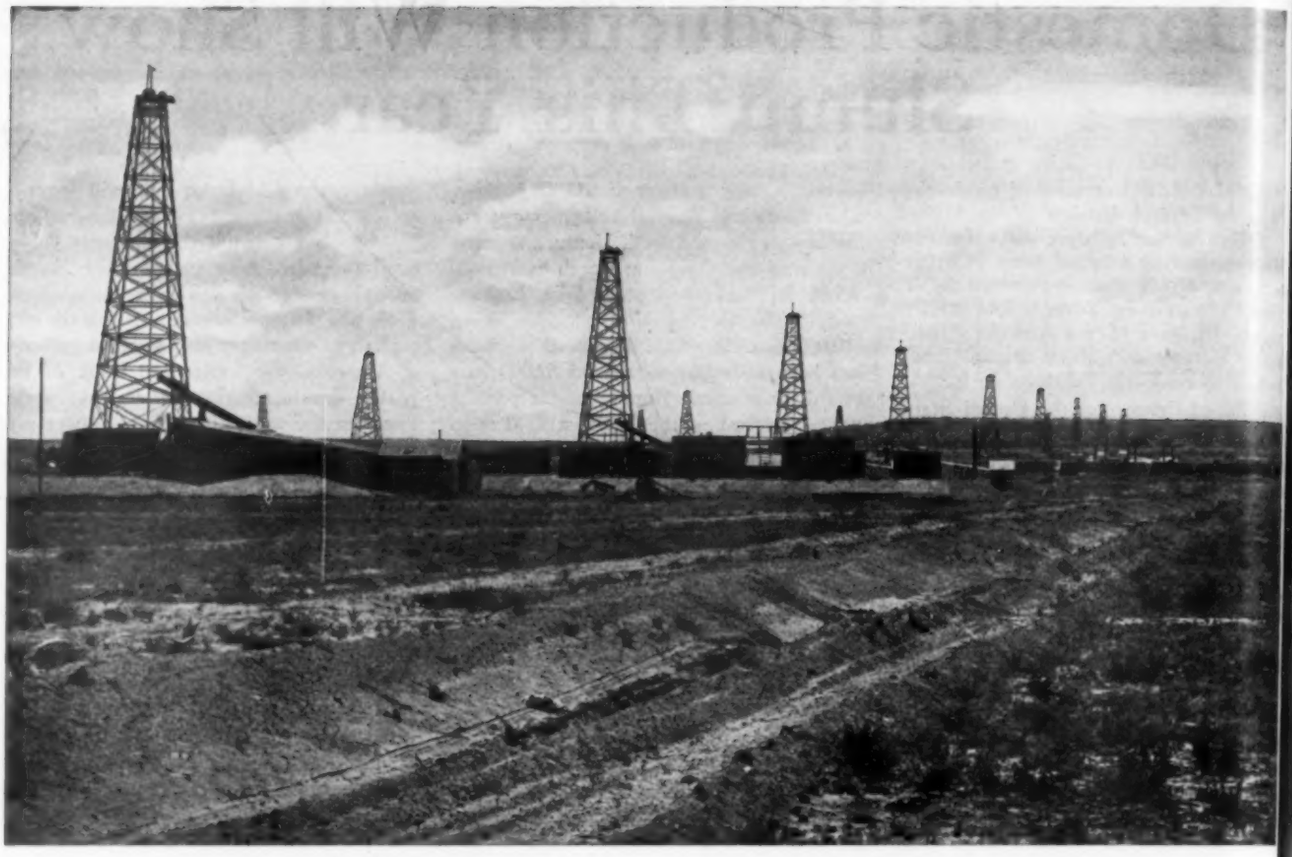
"Considerable core drilling has been done in Kansas during the last two years in Butler and Cowley counties and west. It is reasonable to expect some new pools may be opened on the basis of this work.

"With wildcatting somewhat more active than a year ago, and the daily production higher to start the year with, the writer sees no reason why 1926 should not be fully as prosperous for the oil business in Kansas as was 1925."

Texas

Texas, outside of the Gulf Coast, represents the most important of our oil reserves, according to Mr. Fohs, and it is here that increased production must be sought. This district increased its production more than 11 per cent over 1924 and 15 per cent over 1923, the production in 1925 being 119,000,000 barrels.

According to Dr. Frederick H. Lahee of Dallas, chief geologist, Sun Oil Com-



Both have their "Golden Lane"

Here are two companies, each boasting its "Golden Lane." Golden in fact as well as in name. Each lane is lined with Moore derricks from which flows the steady stream of amber liquid. Success and Moore derricks go hand in hand. The more Moore derricks, the more Golden Lanes like these.

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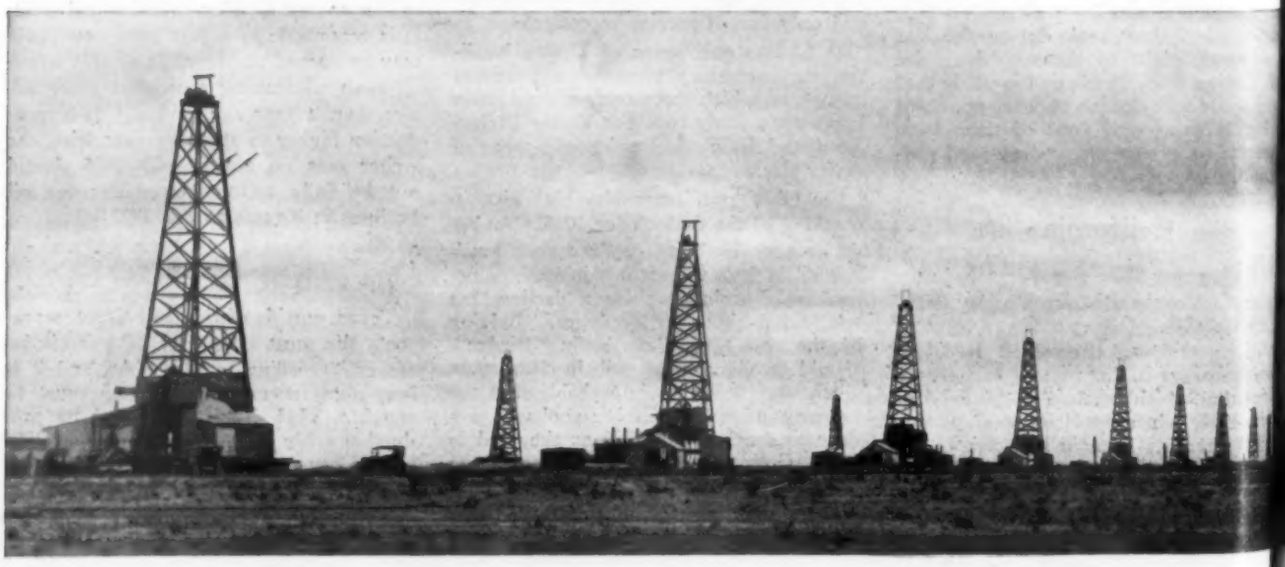

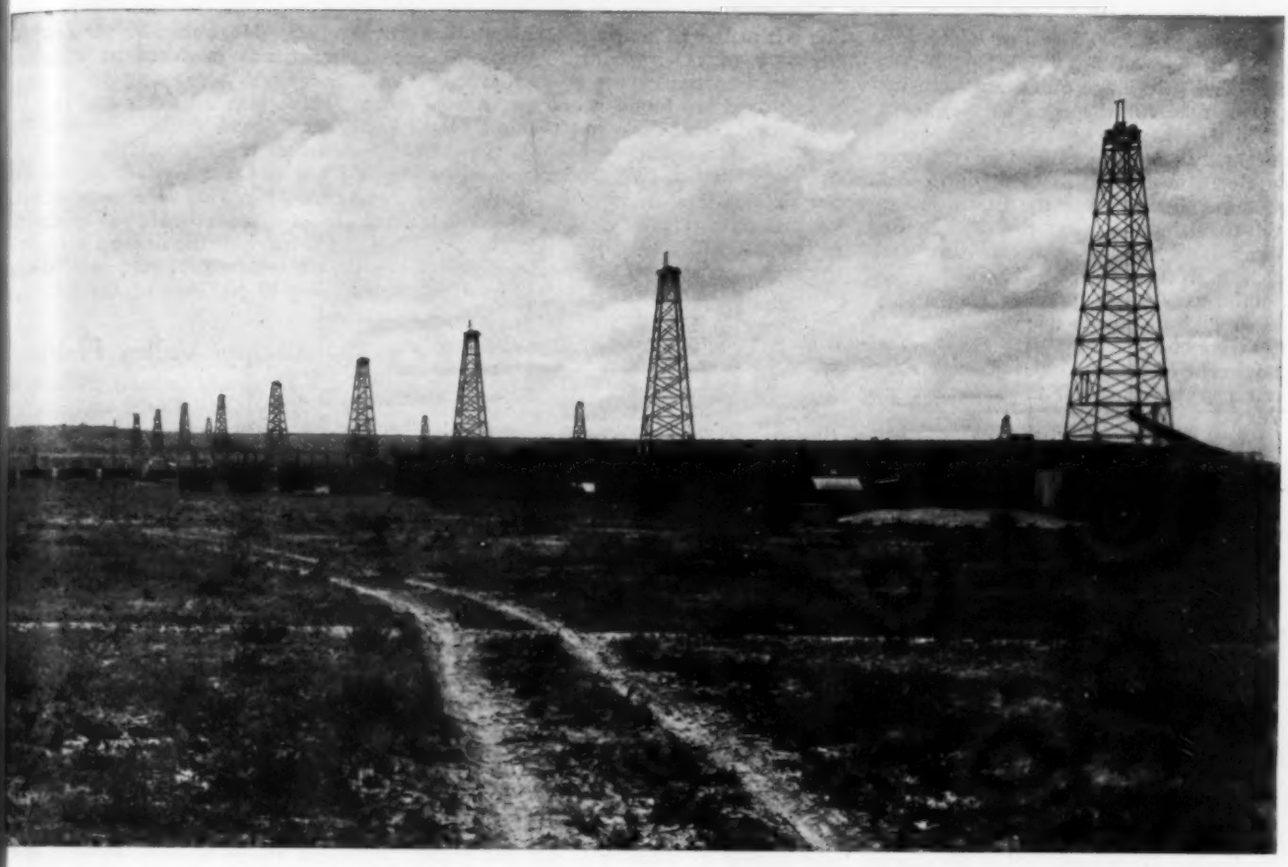

The Golden Lane of the Texon Oil and Land Co., Santa Rita, Texas, Looking South

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DERRICKS

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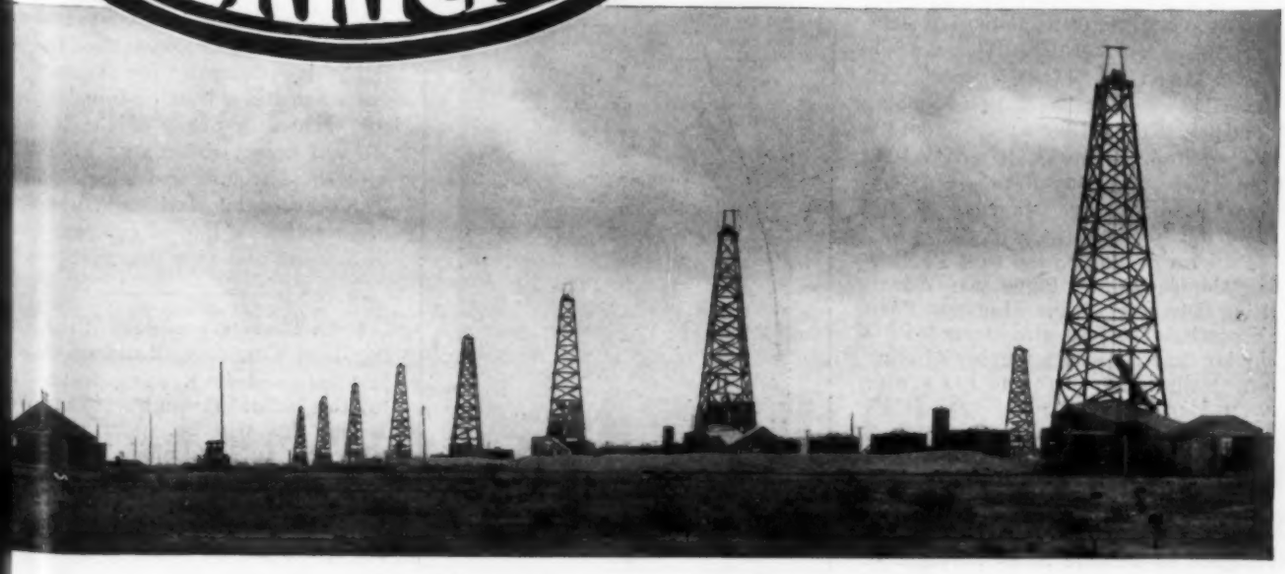
Parkersburg, W. Va. Union Trust Building

The Golden Lane of the Big Lake Oil Co., Texon, Texas, Looking East



pany, the increase was brought about by the drilling of 5600 holes, of which 61.5 per cent were oil wells. The number of holes and percentage of failure were far greater than for the previous two years.

Thirteen new pools were discovered during 1925 and three found in 1924 were developed in the Red River Counties; one pool was discovered in the Bastrop-Caldwell-Guadalupe district; one pool in the Mexia fault zone was extended; one pool each in North Central Texas and in Southwest Texas, was extended, and seven wildcat wells in five different counties were completed in West Texas. The movement of leasemen and geologists are still aggressive in their invasion of West Texas.

"At the beginning of the new year conditions in the business appear to be excellent. Production is declining and a rise in prices for crude is expected within a short time. No big pool is in sight. On the other hand, as a result of the intensive exploratory work of the past year, work which is continuing into 1926, we may confidently expect the opening of several pools. West Texas, more than any other district in the part of the State now under consideration, is looked upon as having the greatest possibility for new discoveries."

Arkansas and Louisiana

Smackover, where deep sand drilling during 1925 established a record for daily production, is responsible for the rise of the Arkansas and Louisiana district to fourth place in production. Other pools in Arkansas declined while the fields in North Louisiana about held their own.

Of 85 wildcats drilled in Arkansas, according to DeWitt T. Ring, whose paper covered this section, only two gave promise of oil, and both of these were small wells. In Louisiana the only discovery of import was the Urania field. Deep drilling at Cotton Valley and Pine Island have yielded wet gas but no oil.

"Although predicting future oil production is a matter of conjecture, barring the discovery of new productive areas the only sources from which production may be increased are found in the deeper untested sands on the known structures now producing from shallower sands. In the Arkansas District, 1926 production will be considerably less. Louisiana will show a smaller actual percentage of decline. Total production will continue to fall off even though there is much drilling. Judicious 'wildcatting' should undoubtedely result in the bringing in of new pools of value to both states."

Gulf Coast

"Development of the Gulf Coastal Area During 1925," was the subject of a short paper by L. H. Freedman, Marland Oil Company, Houston. Seven new salt domes have been discovered in this region by the geophysical methods recently introduced, whereas in previous years only six such domes were discovered. Production was obtained for the first time on the Boling and Nash salt domes. South Liberty, with 4,500,000 barrels flush, was the only worthwhile production added during the year, although new deep production was found at High Island, Pierce Junction, Sour Lake, Piedras Pintas, Batson, Spindletop and Lockport—the latter in Louisiana while all others are in Texas. Production was found for the first time on the Boling and Nash salt domes. The significance of these finds will not make itself felt before late in the year, as development is slow. New domes will in all probability be found during the present year, but their full influence can not be realized for three or four years, as the problem of locating the oil around the dome yet remains a problem which the improved methods of locating the salt have not solved.

The Rocky Mountain district, according to information contained in a paper by Fred E. Wood of Casper, (Midwest Refining Company), declined 26 per cent during 1925. More than 75 per cent for the district was produced in Wyoming, with Salt Creek accounting for most of that. Three new oil fields and two gas fields were found during the year, but did not affect production.

"To estimate the production and new possibilities for 1926 is a very difficult matter, but it appears safe to say that the present fields with the drilling campaigns which are planned should not decline much over 10 per cent of the 1925 production."

Mississippi Valley Fields

In this group are included Illinois, Indiana, Indiana-Ohio Lima, and Western Kentucky, which were discussed in a joint paper by Gail F. Moulton, Hugh D. Miser and W. N. Logan.

The fields of this district show a decline, the only increase being in Western Kentucky. Total initial production was 45,439 barrels from 2023 wells, an average of 25 barrels per well. The year opens with prospects for renewed activity in several sectors, but at best the district can not more than maintain its level during 1926.

Appalachian Fields

Adverse market conditions are the reasons assigned by George Turnbull of the Oil City Derrick, as the reason for a small amount of wildcatting in the Appalachian region during 1925, and the present outlook is not promising. Production decline would have been material except for use of improved water flooding methods and the application of compressed air to the sands in certain Pennsylvania fields, which brought the total production of a half-million barrels above the total for the previous year.

The hope for the future lies entirely in increased efficiency in recovering oil from the old fields under the new water and air methods.

Pigue Is New Advertising Manager

The Gulf Publishing Company, publishers of THE OIL WEEKLY, THE FILLING STATION and THE REFINER AND NATURAL GASOLINE MANUFACTURER, specialized journals covering the three major branches of the oil industry, announces the addition to its staff of W. W. Pigue, who effective February 15 becomes Advertising Manager of the three publications.

Prior to coming to the Gulf Publishing Company, Mr. Pigue was Advertising Director of the Houston Post-Dispatch. He has also served in a similar capacity with a number of other large daily newspapers and has a wide knowledge of advertising.

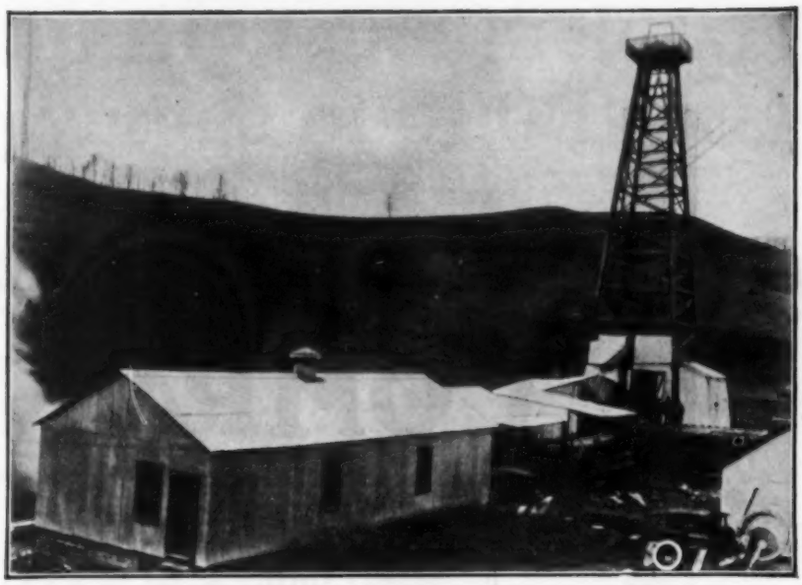
Mr. Pigue in his new connection will maintain headquarters at the company's home office, 1716 Dallas Ave., Houston.

He succeeds R. E. Connell who has resigned to become Sales Manager of the General Machine Works of Houston.

W. W. PIGUE

Mr. Connell has been connected with the Advertising Department of the Gulf Publishing Company for the past five years and has a host of friends among the various branches of the industry. He will expect to keep up his contact with these friends in his new position with the General Machine Works which manufactures a line of equipment used by refiners and pipe line concerns.

L. E. Thomas, president of the Reading Iron Company, Reading, Pa., has just returned to Reading from a trip to the fields throughout the West. During his trip he spent some time with A. F. McClintock, who is in charge of the Reading oil country tubular goods in California. Mr. Thomas paid Tulsa a visit of several days on his return to the home office.



Deep Well Being Drilled by Reserve Gas Company

THIS well is known as Well No. 918 located in Harrison District, West Virginia, between West Milford and Good Hope on Smith Farm.

It was started in December, 1924. The well when completed is expected to be the deepest in the world. Special equipment is being used. The rig is of hard wood, including the Bull Wheel Shaft, which has two brakes of extra heavy type and which will accommodate four tug ropes. The power equipment is composed of three 30 H. P. Boilers, and one 14 x 14 steam engine. A 7/8" 6 x 19 Special "Wickwire" rope was used to a depth of approximately 6300 feet, a 5½" x 38' stem being used. They then installed a 10,000 ft. Special "Wickwire" rope, the upper 5000 ft. section being 1-inch diameter. The splice was made at the well by their own employees.

Following is the data in connection with drilling this well, to and including January 19, 1926:

The first string of casing is of 20" diameter, placed at a depth of 110 ft. to shut off fresh water. This casing was cemented in. This was followed by 1009 ft. 15½"—1356 ft. 12½"—2962 ft. 10"—5043 ft 8" to take care of water caves and gas.

The drilling proceeded without trouble to a depth of 6734 feet, gas being found in the Salt, Injun, Fifty-foot and Speechly sands, the volume of which from the last three mentioned sands having an open flow of 700,000 cubic feet, which was Braden headed and turned into the line.

On September 3rd, while drilling at 6734 feet, a pocket of gas was encountered which blew the tools up the hole, broke the wire line, leaving tools and 25 feet of line in the hole. This was fished out without difficulty. On September 9th, at 6754 feet, another pocket of gas was found, which blew the tools up the hole, broke the wire line and left tools and some wire line in the hole, causing a fishing job for six weeks. The tools were found 200 feet off bottom, and in attempting to drill by to take hold the tools dropped to within 30 feet of bottom. The tools were finally fished out and found in fairly good condition. At 6775 feet, another pocket of gas blew the tools up the hole but did not break the wire line nor stick the tools.

It was decided to run the 6⅝" casing in the first hard spot encountered which happened to be a black lime at 6824 feet, and since November 13th, they have been running this casing, proceeding slowly and carefully. This 6⅝" casing is in the following sections:

2566 ft. 8 inch of 36 lb. screw pipe
1981 ft. 3 inch of 28 lb. screw pipe
10 ft. 3 inch of part screw and part welded pipe
1808 ft. 2 inch of 41 lb. welded pipe
461 ft. of 45 lb. welded pipe

The entire string of 6⅝" casing is more than one mile in length and weighs 120 tons. The screw pipe is on the bottom and the welded pipe on the top. The casing when first run parted 250 feet from the top, after it was set on the bottom. They are now re-running this casing.

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NOEL WEBSTER, of Dictionary fame, says that one is muscle bound when the muscles are tense and of impaired elasticity.

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Perhaps there is little occasion for elasticity when the load on machinery is constant and unvaried. But in the Oil Country, either for drilling or pumping machinery, the load is constantly on and off and of varying weights.

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Wells in Big Lake Field Maintain Average of 400 Barrels

By H. H. King
Staff Representative

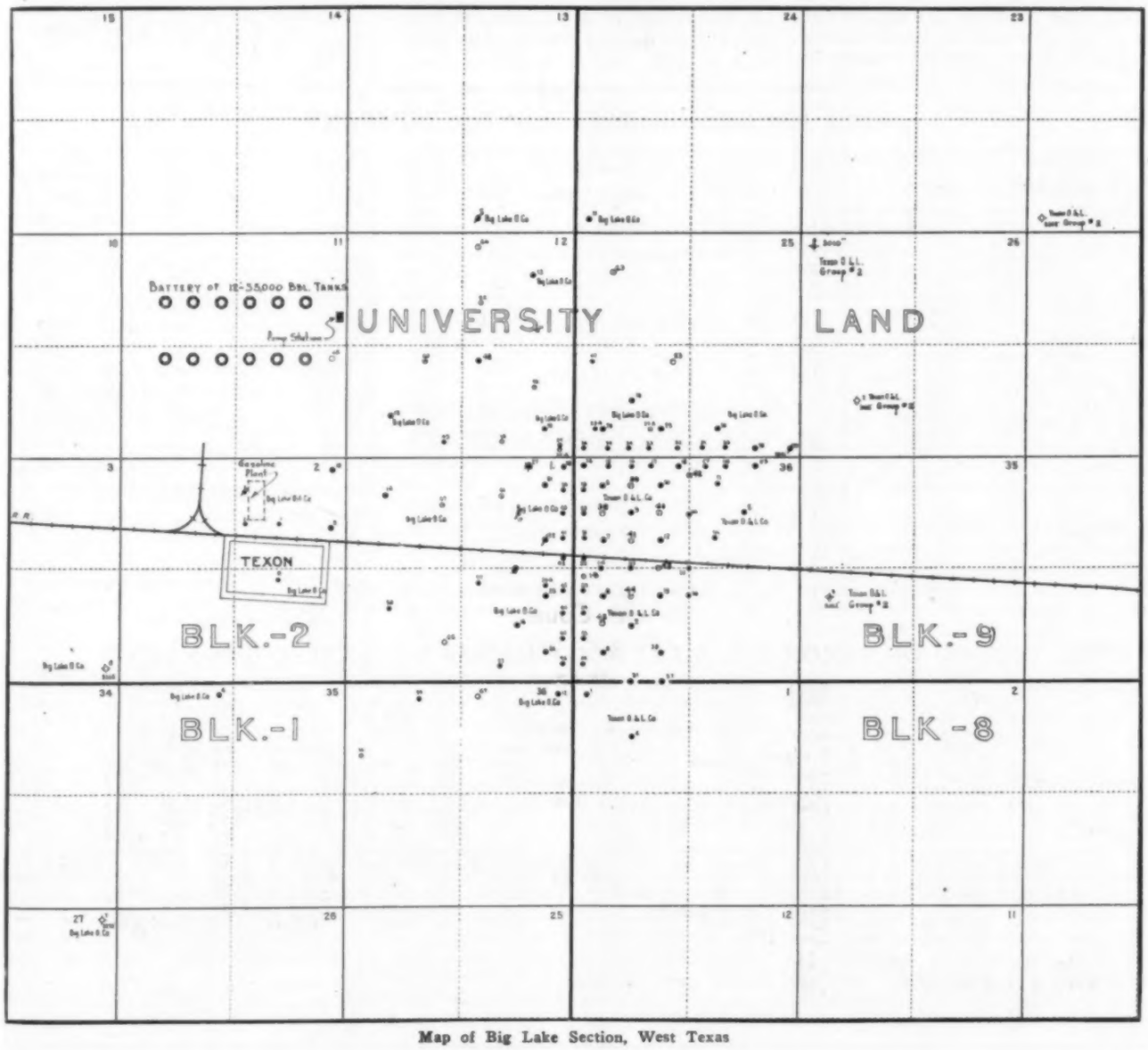
San Angelo, Texas.—Having produced more than 11,000,000 barrels of high gravity crude to date, the Big Lake field in West Texas continues to average about 400 barrels of crude per well daily from 81 producers. The field was credited with having 22 flowing wells and 59 pumpers on February 1, with 28 additional drilling tests, rigs and locations underway in the proven area. Several hundred additional locations are to be drilled in the field, which consists of more than 4000 acres of proven leases for oil and gas production, but this proposed development will be prorated over a period of years in order to keep current production in line with crude committments for the life of the leases.

The performance of the Big Lake field has attracted widespread interest among the companies and individuals conducting exploration work in the great lime basin of West Texas. The sandy-lime formation, known as the Texon pay, is fulfilling early predictions as to its productive qualities, and attractive production is being obtained form wells after reaching the pumping stage.

The discovery well, which was completed May 28, 1923, flowing 80 barrels daily by heads by the Texon Oil & Land Company and later acquired along with 16 sections of leases by the Big Lake Oil Company, continues to pump 30 barrels daily. This well has been pumping nearly two and one-half years with an estimated yield of about 50,000 barrels of 38 gravity crude. Throughout this period the discovery pay has been tapped with wells flowing open through eight, six and five-inch cased holes without resulting in a material decrease in production of the first pumper in the field.

Two Companies Control

The entire field is owned and controlled by the Texon Oil and Land Company and the Big Lake Oil Com-



Map of Big Lake Section, West Texas

pany, and the former company has slightly less than a full section of land located in the proven field, but owns one-fourth of the stock of the latter company. The dividing property line of these two companies is the only section of the field that has been closely drilled, and the future program of the Big Lake Oil Company is to drill one well to 40 acres, except when making a test of the 2440-foot oil and gas pay, which has been found very prolific in certain parts of the field. The Big Lake Oil Company's University 21 and 27 are flowing 200 and 370 barrels daily, respectively, from the shallow pay, while Texon Oil & Land Company has completed a 270 barrel flowing well lately from this pay. The gas produced in this shallow pay is sweet, and is used for fuel, while the gas produced in the Texon pay between 2800 and 3100 feet is contaminated with sulphur fumes, and deadly poisonous, but rich in gasoline content.

The Big Lake Oil Company's University 11 holds the record for the field in production by natural flow, having come in with an initial flow of 3960 barrels after drilling pay at 2942-70 feet on July 31, 1924, and quit flowing October 11, 1925. This well made 35 barrels on the latter date, and 500 barrels on the day previous. The same company's University 15 has been flowing natural for more than one year, as can be noted from the detailed tabulation of each well in the field, and continues to average slightly more than 800 barrels natural. These wells are far removed from offset drainage. The Texon Oil & Land Company's University 9, located in the midst of the closely drilled area, continues to flow 973 barrels natural after being completed April 9, 1925, while University 8 a north offset, is making an equal record.

The only two exhausted oil producers in the Big Lake field were drilled on the west and east edges of the structure by the Big Lake Oil Company. These two wells came in with less than 50 barrels initial on the pump, and necessitated the handling of so much water along with the oil that they were plugged.

Although the producing wells in the Big Lake field are averaging about eight per cent water, no trouble has been experienced with cut oil, and the water is readily removed from the fluid with central treating plants. The presence of water in the Texon, or main pay, is a natural condition to be expected, since the pressure behind the oil is due to water bearing formations below and on the outer edges of the structure. The main pay does not carry a heavy gas pressure along with the oil. Therefore the presence of water pressure on the oil bearing pay is an advantage to the producers, rather than a detriment to the field. A simialr condition exists in the Luling (Texas) field, which has made a record for straight production curve during the past year, without adding any appreciable volume of new production.

The Big Lake field represents the fruits of the first drilling ever conducted in Reagan County, and since the completion of the discovery well a total of 28 deep dry holes have been completed in all sections of the county by outside companies and individuals in search of additional fields, while the total dry holes in the county amounts to 34, including two drilled on the west side of the field by Big Lake Oil Company, and four on the east side of the field by Texon Oil and Land Company, Group No. 2.

A tabloid record of each producing well in the Big Lake field is listed below by companies:

WELL RECORD OF BIG LAKE OIL COMPANY

Well No.	Elevation	Top Lime	Pay Level	Date Comp.	Initial Prod.	Jan. 31, 1926 Prod.
1‖	2724	2935	3020-28	5-28-23	80	30 (P)
2	2720	3006	3018-54	1-19-24	30 (P)	5 (P)
3	2712	2929	3029-42	1-17-24	30 (P)	*
4	2760	2930	3052-86	4-15-24	60 (P)	35 (P)
5	2872	2875	2963-87	4-29-24	75	†
8	2732	2930	3032-70	6-7-24	92 (P)	52.56 (P)
9	2722	2862	2977-84	6-24-24	1,400	430 (P)
10	2715	2871	2956-61	7-11-24	1,850	380 (P)
11	2669	2875	2942-70	7-31-24	3,960	344.52 (P)
12	2786	2934	3038-52	10-28-24	1,700	79.64 (P)
13	2675	2850	2939-50	11-23-24	3,265	552.50 (P)
14	2702	2847	2901-15	3-8-25	708	124.76 (P)
15	2685	2800	2865-81	1-29-25	1,074	819.08 (F)
16	2747	2921	2976-3005	4-26-25	1,699	399.40 (P)
17	2708	Gas	2434-35	2-9-25	87¶	†
18	2690	2770	2899-2928	4-17-25	8,753	25 (F)
19	2690	2825	2900-30	5-27-25	6,250	583.92 (F)
20	2697	2780	2890-2928	8-29-25	3,000	424.16 (P)
21	2697		2438-40	5-28-25	260	200 (F)
22						†
23	2740	2845	2914-45	5-8-25	3,795	510 (P)
24	2760	2865	2988-3022	5-20-25	1,795	‡100 (P)
25	2697	2780	2925-51	6-10-25	1,402	369.28 (P)
26	2698	2860	2950-70	7-3-25	2,402	§320 (P)
27	2690		2438-31	9-18-25	650	370 (F)
28	2700	2876	2983-3005	7-5-25	499	37.56 (P)
29	2699	2910	3021-41	6-23-25	50 (P)	*
30	2702	2785	2938-72	11-6-25	1,220	295 (P)
31	2701	2785	2934-70	9-17-25	1,125	105 (P)
32	2701	2783	2920-60	8-17-25	505	355.48 (P)
33	2699	2785	2927-52	9-16-25	370	124.88 (P)
34	2698	2665	2865-2938	8-29-25	765	250 (P)
35	2692	2790	2875-2900	8-9-25	440	244.88 (P)
36	2700	2770	2845-2915	9-30-25	1,350	494.28 (P)
37	2696	2760	2876-2909	12-18-25	925	369.48 (F)
38	2697	2760	2860-91	7-17-25	1,972	933.56 (F)
39	2702	2775	2871-77	8-30-25	4,841	763.56 (F)
40	2704	2780	2870-2900	8-28-25	2,050	494.04 (F)
41	2716	2770	2870-2927	10-10-25	739	743.72 (F)
42	2723	2780	2882-2912	8-18-25	3,450	748.68 (F)
43	2735	2825	2900-20	10-25-24	280	229.60 (P)
44	2746	2839	2917-29	10-13-25	738	319.52 (P)
45	2756	2850	2959-81	11-1-25	434	274.52 (P)
46	2767	2920	2998-3021	9-26-25	912	494.40 (P)
47	2681	2783	2893-2936	10-31-25	1,877	630.24 (F)
48	2871	2820	2893-2921	11-19-25	1,332	1,260.24 (F)
49	2688	2820	2874-2920	11-22-25	2,006	1,814.26 (F)
50	2730	2910	3002-54	11-16-25	515	184.08 (P)
54	2767	2960	3065-68	1-4-26	2,615	1,363.20 (F)
55	2676	2795	2906-79	1-29-26	613	638.96 (F)
					75,953	19,323.96

‖Discovery well.
(P) Pumping.
(F) Flowing.
*Abandoned.
†Junked.
‡Down 22 hours, engine trouble.
§Down 8 hours, engine trouble.

WELL RECORD OF TEXON OIL & LAND CO. GROUP NO. 1 OIL CORPORATION

Well No.	Elevation	Top Lime	Pay Level	Date Comp.	Initial Prod.	Date Quit Flowing	Prod. Jan. 31, 1926
1	2783.7	2904	3022-36	9- 1-24	2,300	6-23-25	219.76 (P)
2	2756	2890	2950-88	12-10-24	3,050	7-10-25	299.76 (P)
3	2721.5	2814	2912-39	1-11-25	3,550	11- 4-25	215.00 (P)
4	2814.1	3024	3116-46	2-27-25	175‡	2-27-25	15.00 (P)
5	2731.4	2907	3006-30	4- 8-25	2,980	9-30-25	60.00 (P)
6	2710.9	2815	2892-2952	5- 9-25	3,035	9-18-25	119.76 (P)
7	2724.5	2820	2918-60	4-26-25	5,040	10- 7-25	155.00 (P)
8	2743.1	2855	2914-59	5- 2-25	2,735		809.40 (F)
9	2765.3	2905	2985-3018	4- 9-25	1,715		973.80 (F)
10	2714	2855	2920-47	6- 3-25	2,675	11- 4-25	475.00 (P)
11	2714	2840	2966-79	6- 7-25	1,370	1-11-26	685.00 (P)
12	2731.5	2840	2910-72	9- 1-25	875	12- 1-25	644.36 (P)
13	2749.5	2881	2968-86	6-22-25	2,230	12-23-25	637.50 (P)
14	2702.3	2795	2882-2917	7-20-25	4,175	11-19-25	664.88 (P)
15	2705	2795	2883-2924	7-31-25	1,615	10-28-25	95.00 (P)
16	2704	2802	2880-2940	7-18-25	2,065	11-26-25	520.00 (P)
17	2704	2805	2900-37	9- 7-25	640		125.00 (F)
18	2704.5	2829	2929-44	7-10-25	1,985	12- 4-25	495.00 (P)
19	2720	2794	2884-2906	9- 7-25	720	11- 9-25	400.00 (P)
20	2714.5	2780	2882-2917	8-25-25	1,965		885.70 (F)
21	2720	2778	2864-2922	8-12-25	1,900	10-31-25	394.20 (P)
22	2729	2790	2877-2912	10- 3-25	2,950	1-22-26	738.68 (P)
23	2738	2794	2900-45	10-23-25	50§	10-23-25	149.76 (P)
24	2745.5	2810	2920-38	10-23-25	430	10-24-25	159.72 (P)
25	2758	2870	2946-82	11-17-25	390	12- 3-25	‖
26	2796	2890	2900-3000	11-15-25	435	12-31-25	119.68 (F)
27	2705	2850	2906-54	9-19-25	1,050		143.48 (F)
28	2708.9	2865	2967-74	11- 2-25	1,010	11-20-25	470.54 (P)
29	2708	2872	2958-70	10-17-25	120§	10-17-25	116.20 (P)
30	2774	2911	3004-26	11-18-25	925	1- 7-26	512.50 (P)
31	2784	2942	3034-65	1-10-26	75‡	Putting on Pump	
32	2739	2881	2985-95	11-26-25	970	Putting on Pump	
34	2720	2843	2938-44	1- 4-26	2,420		1,044.40 (F)
35	2729	2895	3001-16	12-10-25	600	1- 4-26	150.12 (P)
36	2752	2890	2992-3005	1- 4-26	1,280		475.00 (F)
37	2782	2963	3062-69	1-28-26	45‡	Putting on Pump	
					59,545		12,969.20

‡Swabbing initial production.
§Pumping initial production.
‖Repairing pump.
(P) Pumping.
(F) Flowing.

Turkish Petroleum Monopoly

Washington, D. C.—The bill establishing a petroleum monopoly for Turkey, which has been under discussion for some time, was recently adopted by the grand national assembly, according to a cable received by the Department of Commerce from Assistant Trade Commissioner James R. Mood, Constantinople.

Under the terms of the law, petroleum and benzine (presumably referring to kerosene and gasoline) importation is to be under government monopoly. By-products for industrial purposes are to be free.

The selling price of petroleum and benzine is to be based on cost price plus customs and consumption dues plus transportation and administrative charges plus eight piasters per kilo monopoly dues. (Eight piasters is equivalent approximately to $0.045.)

Trade in petroleum and benzine produced locally is free subject to eight piasters per kilo monopoly dues. Appointment of officers and the preparation of by-laws of the monopoly administration is to be made by the minister of finance. The law provides that petroleum and benzine ordered two months prior to entering into effect of the law may be bought by the government at previous price. Merchants are free to export provided they do not wish to sell their stock to the government; customs, consumption and other official dues being refunded at port of reshipment.

Merchants are compelled within a month from issue of law to submit statement of stocks on hand, in absence of which statement retailers and wholesalers are subject to fine of 10 and 50 Turkish pounds respectively. Stocks not reshipped or sold to monopoly within the prescribed period of delay are subject to the monopoly duty.

Lauster-Kunkel Extensions Open Additional Territory

Wichita Falls, Texas.—Extensions made to the east and southwest of the Lauster-Kunkel shallow oil pool on the Archer-Young County line during the past week opens the way for new drilling activity. The M. & V. Oil Company's Kunkel 4 widened the pool one location to the east with an initial production of 300 barrels from sand at 1171-74 feet, while the joint test of Camp Oil & Gas Company and Atlantic Oil Producing Company on the R. H. Rachuig land is rated good for 200 barrels at 1168-72 feet. This well is several locations from production, and picked up the top of the sand about 10 feet higher than usual.

Gulf Production Company's test for deep production on the H. L. Ward land in lower Archer County is showing gas from top of sand encountered at 3600 feet while carrying the hole full of water. A string of 6⅝-inch casing is being re-run to try and shut off the water, and test the sand. This is the first trace of gas encountered by deep drilling in the county. Gulf's M. W. Jackson 1-A, located on the north line of the W. B. Aldridge survey, opened up a new pool between the Nichols and Wichitex-Dixie pools early this week swabbing 110 barrels daily at 1553-57 feet. Gulf's W. R. Dupriest 1, located at the center of the north half of section 2489, and several miles north of Megargel, is showing a little oil after picking up sand at 1485-87 feet, but the formation is running low for a producer.

Four tests are being started on leases around the semi-wildcat discovery made in Wichita County on the south end of Fowlkes Station several weeks ago by G. H. Howell et al on the H. B. Hines tract. This well is swabbing 130 barrels daily from sand at 1392-93½ feet while cleaning out to complete. The well and lease has been purchased by John Hooser of Dallas for $60,000.

Superior Finds Deep Oil in Athens-Rosecrans Field

Los Angeles, Calif.—The Superior Oil Company, operating in the Athens-Rosecrans field, apparently has been successful in its search for a deep sand.

During the week, the operators penetrated slightly above 6300 feet a brown shale streaked with enough oil sand to make a productive well, under normal conditions. The well, Maxwell Community No. 2, now is drilling below 6300 feet in a continuation of the above formation.

On the south side of Athens-Rosecrans, the Union Oil Company has not been so successful in its search for deep production. The Union's Gordon well is below 6640 feet, but has encountered no showings of importance and its progress is retarded by water difficulties. Present indications are the Union will share the fate of the U. S. Royalties Company, which failed in an attempt to find a deep sand in the field.

1400 Barrel Producer Opens Shackelford County Pool

Breckenridge, Texas.—Flowing by heads at the rate of 60 barrels per hour through 8¼-inch casing, the wildcat test of Roeser-Pendleton & Marland Oil Company on the W. I. Cook ranch in Shackelford County established a new shallow oil pool last thursday after drilling 18 inches into oil sand to a total depth of 1241½ feet. The production of this unusual producer was holding at 30 barrels per hour on Monday of this week, and the crude tests 38 gravity. This well is located in the northwest corner of the northeast quarter of section 85, E. T. Railway survey, and about two miles due north of the Tannehill field, which is producing from the same sand pay level.

The owners of this wildcat producer hold leases on approximately 19,500 acres in one block, and this discovery is the second test started out of a total of six contemplated. The shallow producer is located on the south end of the block. Humble Oil & Refining Company owns an 80-acre lease to the northwest of the producer, and French & Lewis held lease on similar sized tract a quarter of a mile southwest of the well, but sold same to Amerada Petroleum Corporation early this week, for $500 per acre, of which $400 per acre was cash and the balance payable in oil. Humble Pipe Line Company is extending a small line from the Sedwick pool, 14 miles, to purchase the crude, while in the meantime the production is being handled by tank car shipments via the Texas Central railroad.

The Cross Cut field in Brown County added an extra large oil producer in the regular shallow pay last week when J. S. Cosden et al's Westerman 3, which is offset by two dry holes, flowed 72 barrels during the first hour after drilling sand at 1278-1301 feet, and soon settled to 30 barrels per hour.

The northeast extension given the Cross Cut field several months ago by Humble's shallow discovery well is now experiencing an active drilling campaign, and the field gives promise of covering considerable area. Barney Carter, Mack T. Anderson and Cowboy Evans extended the oil producting area about one mile due south with an initial flow of 150 barrels of high gravity crude and one million cubic feet gas at 1083-86 feet. This well is on the Allen-Dunn land, and in the northwest corner of lot 13, Juan Delgado survey.

Continental Buys Humphreys Interests in Nacona Field

Wichita Falls, Texas.—Producing properties and undeveloped leases owned by the Humphreys Corporation in the Nocona shallow oil and gas field, Montague County, Texas, are being acquired this week by the Continental Oil Company for a consideration of approximately $450,000. This deal involves about 1000 acres of leases scattered over the entire field, with eight shallow wells pumping 290 barrels of crude ranging from 22 to 40 gravity. The Humphreys Corporation completed the first oil producer in the Nocona field June, 1924, and has several large gassers shut in.

The Continental Oil Company is already a major owner of oil and gas producing leases in the Nocona field having obtained same in the purchase of control of the Texhoma Oil & Refining Company. The Nocona crude makes an excellent grade of lube oil, and the crude will be used in operating a lube plant that is to be erected shortly at the Wichita Falls skimming and cracking plant of the Texhoma (Continental) Oil & Refining Company.

Senate Passes Extension Bill

Washington, D. C.—The Senate has passed the bill introduced by Senator Cameron of Arizona, authorizing the Secretary of the Interior to grant extensions of oil or gas prospecting permits for a period of two years in cases where the permittee has been unable to begin drilling operations or to drill wells of the depth and within the time required by existing law. The measure now goes to the House of Representatives for concurrence.

Symposium of Production Shows 1926 Trend

(Continued from page 44)

ment of about 100,000 barrels per day throughout the year.

It is believed that for the year 1926 Venezuela will not maintain its record of doubling production as heretofore for the reason that transportation facilities, principally lake tankers, will probably not be furnished rapidly enough to take care of such an increase. The total production for the year 1926 as estimated will be 30,000,000 to 35,000,000,000 barrels.

Trinidad

Trinidad, the principal island of the West Indies that produces oil, showed a small increase in 1925, but the amount of footage drilled was less than in 1924. The greater part of the 4,306,500 barrels produced last year, was obtained from the several fields lying south of the famous Pitch lake in the southwestern part of the island, the most important of which are: The Fyzabad and Forest Reserve fields operated by the Trinidad Leaseholds, Ltd., and associated companies.

Peru showed an increase 18 per cent in its output, with a total recovery amounting to 9,060,000 barrels.

Production in India was about 8,000,000 barrels, slightly less than in 1924.

According to reports of the Argentine Government, production in that country increased 42 per cent during the past year. The bulk was from the Government operated area in the Comodoro Rivadavia field. The outlook for the present year is increasing production.

Poland showed practically no change in her output for 1924. The output is estimated at 5,665,000 barrels. For this year the outlook shows little improvement.

Sarawak production, estimated at 4,200,000 barrels was about the same as for 1924. Little increase is anticipated for the present year.

Japanese production in 1925 was estimated to be 2,000,000 barrels, the same as for 1924.

An increase of 11 per cent over 1924 is shown in production of Egypt, all of which is in the Hurghada field. The outlook for this year is for continuous production at approximately the present rate.

Colombian Prospects

Colombia reported a gain of slightly more than a half million barrels. The outlook for this year is for considerable increase, as the Andean Corporation expects to complete a 10-inch pipe line, by May 1, from Infantes, the only producing field, to Cartagena. With the proved production in excess of pipe line capacity, which is estimated at 30,000 to 40,000 barrels, it is possible that Colombian production may increase to 7,000,000 or 8,000,000 barrels for 1926.

France showed an increase of 74,000 barrels for 1925, from the Pechelbronn field.

Drilling operations have been continued in the salt structure region of Germany, but no great addition to production has been made.

Slight production is reported from the northern half of the Island of Saghalien, but few details are available.

About 12,500 barrels of black oil was recovered in Algeria, near the village of Tilouanet in the Dahra region of Oran.

Production in Cuba was approximately 4,500 barrels, from the old Bacurnao field near Havana.

Summing up for foreign fields, Mr. DeGolyer concludes that Venezuela should perhaps show an increase of 10,000,000 barrels; Colombia an increase of 6,000,000 to 8,000,000 barrels; increases of a few million barrels each may be expected from Peru, Russia, and perhaps, the Dutch East Indies. More or less stationary output, or slight increases, may be expected in Persia, Roumania, Argentina, Poland, Sarawak, and Trinidad. Considerable decreases may be anticipated in the production of the United States and Mexico.

No Startling Developments in Arkansas During Week

El Dorado, Ark.—The Buffalo Oil Company's Morgan No. 4, located in section 22-15-19, of the newly-discovered Nacatoch-sand field at Stephens, Ouachita County, blew in Sunday with an estimated initial production of five million cubic feet of gas from one foot of sand at a total depth of 1,544 feet. The well was closed in for one hour; and, upon being re-opened, it showed a slight spray of oil during a brief interval. The spray of oil soon ceased, however; and the well is now shut in.

J. D. Reynolds is said to have drilled into a salt water sand at 1508-15 feet in his Davis No. 1, located in the same northwest corner SE¼ SW¼ of the same section, located about three-eights of a mile southeast of the Buffalo Oil Company's gasser, described above.

J. E. Crosby and Mose Gossett are drilling in on their Wallace No. 1 and Cosden No. 1, located in sections 27 and 21, respectively, of township 15-19. Reports are current to the effect that an oil-bearing sand has been found at 1458 feet in the Gossett well.

The Magnolia Petroleum Company has set 6⅝-inch casing in its wildcat being drilled on the property of the Calion Lumber Company, in section 29-15-14, of Calhoun County. The same company is drilling at 4,475 feet in its deep wildcat test on the Johnson land, in section 3-15-21, near the Irma field, in Nevada County.

The Southern Crude Oil Purchasing Company is drilling the 8¼-inch plug, preparatory to making a test at around 2,330 feet, in its Freeman-Smith wildcat, in section 19-14-15, of Calhoun County.

The Arkansas Fuel Oil Company is preparing to build a pumping rig on its Red River Lands No. 1, located in section 18-19-24 of the new field at Bradley, in La Fayette County. In a swabbing test conducted recently, the well yielded around 2000 barrels of fluid per day, of which about 30 barrels is oil, the remainder salt water. The same company has begun drilling in its fourth well, Red River Lands No. 2, which is located in the same section.

W. R. Keever and associates completed an 800-barrel well in the Graves sand at 2,471 feet on their Sanford Lease, in section 17-16-15, of the Smackover Field last week. Howell & Knowles suffered a gas and salt water blow-out while reaming at around 2527 feet in their Springer No. 1, which is located in section 36-17-16. The well is said to be making around 10,000 barrels of salt water, 25 million cubic feet of gas, and tremendous quantities of sand.

Announcement was made last week of the closing of a deal whereby the Humble Oil & Refining Company acquires the holdings of M. W. Greeson and associates in the Irma field. A cash consideration of $65,000.00, with additional payments out of oil, is recited. A total of 220 acres of land, on which there are four producing wells, is involved.

White Eagle Earnings

Kansas City, Mo.—Net income of the White Eagle Oil & Refining Company for 1925, after charges, federal taxes, depreciation and depletion had been deducted, showed a total of $1,466,860. This is equivalent to $2.99 a share on the 490,000 shares of no par stock outstanding. Surplus for the year is $501,860 against $109,385 for 1924.

Wells Flowing 500 Barrels Increase Interest at Urania

Shreveport, La.—Excitement is running high in the Urania district, following the completion last week of a number of 500-barrel wells. The Louisiana Oil Refining Corporation brought in two wells of that calibre Monday, both of which are located on its 280-acre Tremont Lumber Company lease in section 25-10n-1e. O. W. Clark et al also brought in two 500-barrel wells, located on the Russell land, in section 26, and on the Miles property, in section 25, of the same township. The Standard Drilling Company's Clinton No. 1, located in Lot 1, Block 2, Tullos townsite, is said to be flowing about the same quantity of pipe line oil from four feet of sand at a total depth of 1571 feet.

The competitive drilling campaign now in progress in the Tullos townsite is expected to reach its peak this week, as a score or more of wells started after the completion of the Natural Gas & Fuel Corporation's flash-in-the-pan gusher are nearing completion. The Louisiana Oil Refining Corporation, alone, may complete a dozen or more wells located in and near the town of Tullos.

The production of the field has risen, for the first time, to more than 3,000 barrels per day; and it is considered likely that that figure may be doubled before the end of the week.

One of the most interesting of all reports received from the new field last week is to the effect that a green oil, differing in color and quality from the brown oil found in other wells at Urania, has been bailed from five feet of sand at 1548 feet in the Greenwall Syndicate's Sayers No. 1, in section 26-10-1e.

Interesting developments in the deep-sand development campaign of North Louisiana are expected during the current week. The Gulf Refining Company has reached a total depth of 6,045 feet in its Williams C-18, located in section 31-13-11, of the Naborton district, De Soto Parish. The Fortuna Oil Company is reaming hole in its Bible wildcat, located in section 8-20-9, southeast of the Cotton Valley field, preparatory to setting a string of six-inch casing to test a showing of gas logged at a depth of 4261 feet. The Ohio Oil Company is preparing to bail to test a hard formation at a total depth of 4415 feet in its Hodges No. 1, located in section 23-21-10, near the center of the Cotton Valley field. The same company is drilling at 4370 feet in its Cox deep test, located in the same section; and the Humble Oil & Refining Company is fishing for twenty joints of drill stem at 4214 feet in its Cox well, located in section 22 of the same township.

On Pine Island, Caddo Parish, the Dixie Oil Company is setting six-inch pipe at 3,557 feet in its Noel B-2, located in section 13-21-15, near its Robertshaw discovery oil well, which is still flowing at the rate of 500 barrels of oil and more than 3000 barrels of salt water per day. The same company is drilling at 3815 feet in its Jolly deep test, in section 27-22-15. The Ohio Oil Company is drilling at 3735 feet in its E. K. Smith No. 18, in section 12; and is reaming at 3885 feet in its Ardis No. 1, in section 1, both in township 21-15.

D. C. Richardson's wildcat gasser drilled on the Youree-Randolph land in section 13-20-15, near Dixie and Belcher, Caddo Parish, was re-opened several times last week, in the hope that it might blow itself in as an oil well. Before it was opened again last Wednesday, it showed a closed-in pressure of 950 pounds. When opened, it blew dry gas for about ten minutes; and then began flowing clean oil. However, it made only about 10 barrels before it sanded up and went dead. Preparations are now being made to clean it out. Richardson is rigging up to drill two more wells on the same property.

The Oil Well Supply Company took a prominent part in the Pittsburgh Chamber of Commerce's "Let's Know Pittsburgh" Week, Feb. 13th to 19th, displaying a model Drilling Rig (as shown above) which attracted unusual attention

6000 Barrel Producer at Luling Best in Two Years

Luling, Texas.—Blowing in for an initial production of 6000 barrels daily of pure pipe line oil, the United North and South Oil Company's No. 23 McKean in Guadalupe County is the best well to be completed in the Luling field in more than two years. It is coming from the Edwards lime at 2150 feet, the same depth of the other producers in the field.

This well is located on the west side of the Guadalupe County line and several locations from the edge of the field. It is in territory, heretofore considered unfavorable for oil, several gas and water wells being drilled in the vicinity.

Three other wells were completed in the Guadalupe County extension of the field during the past week by the United. They were the Nos. 21, 22 and 23 Allen, all of which are producing 400 barrels each from 2150 feet.

All four of the producers are free from water, having been drilled shallower into the formation than the earlier tests of the field.

Wildcats are also attracting considerable interest in the Luling territory. Both Caldwell and Guadalpe Counties are being tested. Probably the most interesting test is the Van Kueren Oil Company's No. 1 Ridout, which was spudded in recently, several locations to the east of the producing area of the Caldwell field.

Kevin-Sunburst Area Has Large Production Available When Wanted

Casper, Wyo.—Pine Mountain, long regarded as one of the worst "lemons" in Wyoming, finally has yielded something more than a few drops of oil and a little gas accompanied by several thousand barrels of water. A group of Casper men have completed a four million cubic foot gas well on the southeast quarter of section 26-35-84. Although several wells have been drilled on the structure, this is the first one to be completed without a trace of water. The sand was found at approximately 1800 feet and the test continued only two feet. The location of the sand proves conclusively that the well is higher on the structure than former tests. The structure, one of the most peculiar in the state, rises more than 1000 feet above the surrounding country. The outcropping formations all around the mountain point toward the apex of the structure. This fact has led many operators to believe that gas or oil existed within the structure if the center of the producing area could be found. Wells drilled several years ago flowed large quantities of oil with smaller amounts of water. One large gas well was completed but the water was such a menace that it could not be shut off from the gas. The owners of the newest producing lease have already secured a market for some of the gas, it is understood. Another test will be drilled about one-fourth mile to the south and west of the producer recently completed. An active drilling campaign on the structure is not anticipated as the possible producing area is thought to be comparatively small.

Recent successful completions in the Lost Soldier field have led the chief operators of the field to consider a large drilling program during the present year. The Utah Oil and Refining Company will drill a well, which will, as nearly as possible, offset producers recently completed by the Prairie and Producers & Refiners interests. The large number of producing sands in the field makes drilling a certainty. Wells in the field are now producing from several different sands, all yielding a good grade of crude. The possibility of finding even deeper producing sands is very encouraging as the discovery well of the deepest sand yet tapped is scarcely more than 2000 feet deep. The well completed in the field by the Producers and Refiners Corporation is producing more than 250 barrels daily. The wells generally are not large but production holds up close to the initial figure for several months.

The Mosher-Dyke interests, drilling in what has been regarded as an outside lease, have completed their second producer on the northeast quarter of section 33-40-79, west extension of the Salt Creek field. A large shale pocket was encountered at 1510 feet and the well will produce 200 barrels of oil daily on the pump. This is the second producer drilled on this lease within a year. Singularly enough, the water line of the field is supposed to cut off any possible production from the first and second Wall Creek sands. These wells were completed in the shale far shallower than the sands were expected. A well was drilled to the main sands a few years ago but it was dry. Apparently these interests had only one chance for production, namely, in the shale, and they were fortunate enough to strike it for fair-sized wells. The shale oil in this part of the extension is of much higher gravity than the crude in the field, some of it running as high as 40 gravity, and commanding a price of $2.36 per barrel, based on Mid-Continent quotations.

The Texas Production Company has succeeded in reaching a depth of 3410 feet in its test of the Arminto structure. A sand, supposedly the Dakota, was found at about 3260 feet, but carried water. The bottom of the sand was reached at approximately 3400 feet. Since taking over this test last fall, these interests have found nothing of importance. The well was flowing about three million cubic feet of gas from a higher sand when a drilling agreement was reached. The casing will be run past the bottom of the Dakota sand to shut off the flow of water. If this is successful, the test will be carried to the next objective, the Lakota sand.

Production Steady

Daily average pipe line runs from all the fields in the Rocky Mountains during the past week totaled almost exactly the same figure as during the previous week. Not a field in the entire region recorded a change of more than a few hundred barrels. The Craig (Moffat) field showed a gain of about 600 barrels but this was due to the completion of a 1600 barrel well by the Texas-Transcontinental interests.

No completions of importance were reported during the past week in the Kevin-Sunburst field. The pipe line conditions in the field have not been improved, although additional storage is being rushed to completion by the purchasing as well as the operating companies. Experts who have returned from Montana say that the Kevin-Sunburst field is the most underrated in the United States, and should be classed with fields now producing 50,000 barrels daily. More than 45,000 barrels daily is available for the pipe lines, if only the facilities were there to handle it, they say. The field is a large one and is drilled extensively in spots. The producing sands are somewhat tricky and dry holes are not uncommon in the field. The element of risk is present in the field to a greater extent than in most proven fields. A well may be drilled in two weeks, however, and at a comparatively low cost. These facts tend to take some of the sting out of drilling a failure. The isolated condition of the field and the lack of demand for the crude have kept the field from getting the publicity that it otherwise would have received. A mere 9000 barrels daily are benig run from the field at present. When the demand comes, this field will be heard from and seems likely one to be treated as one in the first class division.

The Fertig Oil Company has been organized and incorporated to take over the extensive holdings of the Fertig interests in the Kevin-Sunburst field. It is a $5,000,000 organization and will take over outright the holdings of the old Fertig and Treasure State holdings, which are among the richest in the field. Officials of the company have announced that more than 60 wells will be drilled in the Kevin-Sunburst field during the year.

The Ohio Oil Company is becoming very active in the Kevin-Sunburst field. Additional acreage is being sought in the Corey district of the field. The Regal Oil Company owns valuable acreage in this section of the field and is negotiating with the Ohio interests, relative to its sale. Several producing wells are now located on the leases. Its No. 13K well, section 15-35-2, has been abandoned at 1545 feet. Water was found in the objective sand. The company is drilling other tests in the field and controls a large daily production.

A test of a new structure, located on section 11-4-58, and about 61 miles east of Denver, will be undertaken soon by H. H. Temple and a group of associates, who formerly operated in the Mid-Continent fields. The new structure is distinctly on the plains and was carefully worked out before the rig was located. The Dakota is the objective sand and should be found at slightly more than 3000 feet, the operators think.

Another test of the prairies of eastern Colorado will be made on section 31-18-51, about 75 miles northeast of Pueblo, by the Mineral Exploration Company, a Denver concern. The contract calls for core drilling. Several shallow wells were drilled to determine the best location for the principal test.

AVERAGE DAILY PRODUCTION FOR U.S.

Texas

NORTH TEXAS

Burkburnett	12,400	12,300
Electra	16,350	16,150
Iowa Park and K-M-A	5,410	5,450
Wilbarger	11,400	12,150
Panhandle	3,100	3,050
Petrolia	400	450
Archer County	26,900	26,200
Others	900	900
Totals	76,850	76,550

EAST CENTRAL TEXAS

Mexia	13,250	13,150
Currie	1,050	1,050
Richland	2,500	2,300
Corsicana-Powell	32,100	32,200
Wortham	10,950	10,500
Totals	59,050	59,200

WEST CENTRAL TEXAS

Stephens County	12,650	12,750
Eastland County	5,850	5,900
Desdemona	2,050	2,050
Young County	7,850	7,950
Palo Pinto County	400	400
Callahan County	4,450	4,450
Shackelford County	2,300	2,300
Reagan County	29,300	28,700
Others	5,050	5,100
Totals	69,900	69,600

SOUTHWEST TEXAS

Luling	20,850	21,200
Mirando	5,600	5,600
Somerset	2,200	2,250
Lytton Springs	7,050	7,150
Others	1,300	750
Totals	37,000	37,650
Texas Total outside Gulf Coast	242,800	243,000

GULF COAST

Goose Creek	8,500	8,550
Hull	15,450	15,250
Saratoga	1,200	1,250
Blue Ridge	900	900
Damon Mound	1,000	1,000
Batson	1,100	1,150
West Columbia	9,000	9,150
Humble	4,750	4,900
Pierce Junction	1,300	1,300
Sour Lake	4,800	4,800
Spindletop	5,300	4,150
Orange County	13,300	13,600
Edgerly	600	600
Evangeline	1,050	1,050
Vinton	6,500	6,600
Lockport	1,550	1,600
South Liberty	7,750	7,700
Big Creek	950	1,000
Boling	4,250	3,950
Piedras Pintas	....	700
Others	1,600	1,600
Total	90,950	90,800

North Louisiana

Homer	5,900	5,850
Haynesville	10,400	10,350
Caddo Light	8,850	8,850
Caddo Heavy	2,350	2,250
De Soto-Red River	3,900	3,950
Elm Grove	500	600
Bellevue	2,305	2,350
Cotton Valley	8,150	8,100
Urania	950	2,300
Total	43,400	44,600

Arkansas

El Dorado	7,600	7,550
Smackover Light	19,200	18,850
Smackover Heavy	140,200	140,400
Stephens	1,500	1,500
Nevada	1,650	1,600
Total	170,150	169,900

California

	Feb. 13	Feb. 20
Santa Fe Springs	47,000	48,000
Long Beach	112,500	111,000
Huntington Beach	44,500	44,500
Torrance	28,500	28,000
Dominguez	23,000	23,000
Rosecrans	22,000	22,500
Englewood	56,000	55,000
Midway-Sunset	92,000	92,000
Others	181,000	180,000
Totals	606,500	603,500

Oklahoma

North Braman	2,700	2,150
South Braman	7,950	8,350
Blackwell	3,400	3,350
Hubbard	2,200	2,150
Thomas	10,200	9,350
Tonkawa	42,350	41,950
Garber	27,200	26,600
Burbank	44,850	44,750
Osage (Outside Burbank)	33,150	33,000
Watchorn	2,900	2,850
Cushing	22,600	22,500
Yale Jennings	11,350	11,450
Davenport	19,850	21,800
Bristow-Slick	32,150	31,950
North Okmulgee	18,550	18,500
Lyons-Deaner	4,300	4,300
Stroud	2,700	2,850
Cromwell	20,500	19,600
Papoose	15,350	15,100
Wewoka	14,100	15,750
Duncan District	7,500	7,500
Graham	9,250	9,200
Fox	3,500	3,600
Healdton	14,950	15,000
Hewitt	12,600	12,500
Others	63,300	63,900
Total	449,000	450,000

Kansas

Florence-Covert	2,000	1,900
Peabody-Ebling	4,950	4,850
Eldorado-Towanda	14,300	14,150
Augusta-Fox Bush	5,000	5,050
Rainbow Bend	5,050	4,850
Russell	5,400	5,100
Greenwood County	40,000	41,150
Others	24,550	25,500
Total	102,250	102,600

Mountain States

WYOMING

	Feb. 13	Feb. 20
Salt Creek	55,350	53,950
Grass Creek	2,800	2,750
Elk Basin	650	550
Big Muddy	3,400	3,350
Lost Soldier	4,150	4,200
Rock River	2,950	2,750
Teapot Dome	1,700	1,700
Others	4,350	4,550
Totals	75,350	73,800

MONTANA

Cat Creek	3,100	3,050
Sunburst	9,050	11,650
Totals	12,150	14,700

COLORADO

Moffats (Craig)	3,750	3,800
Fort Collins	2,400	2,450
Florence	400	400
Others	450	500
Totals	7,000	7,150

NEW MEXICO

Artesia	3,200	3,400
Hogback	550	500
Rattlesnake	400	400
Total	4,130	4,300
Total Rocky Mountains	98,650	99,950

Eastern States

(Including Ill., Ind., Ky., Pa., Ohio, W. Va., and N. Y.)	99,000	99,000

PRODUCTION SUMMARY

East of Rockies	1,196,550	1,199,900
United States	1,901,700	1,903,350

Second Oil Producer In North Brown County

Breckenridge, Texas.—A second oil producer was completed near Humble's recent shallow discovery in North Brown County during the past week by Mack T. Anderson, Cowboy Evans et al's Allen 1 with an initial production of 150 barrels and one million cubic feet of wet gas from sand at 1083-86 feet. This well is in the northwest corner of lot 13, Juan Delgado survey, and about one mile due south of Humble's discovery. The States Oil Corporation's Allen 1-A, located in the northwest corner of the south half of lot 7, is making six million feet of gas at 1070-86 feet, and widens the field to the west. Carter et al's Jones 1, located one mile southeast of the Allen oil well proved dry at 1200 feet.

"OIL FLOW IN PIPE LINES"

By R. S. DANFORTH, Contains charts as follows:

THE PRESSURE LOSS is shown at once for any capacity in barrels per hour or gallons per minute of any Saybolt or other viscosity oil. The charts are based on tests by Messrs. Stanton & Pannell of the National Physical Laboratory of Great Britain and checked by many experiments of oil companies in the United States.

THE VISCOSITY CONVERSION CHART shows the equivalents of the Saybolt Universal and Furol, Engler, Redwood, Redwood Admiralty, Absolute and Kinematic viscosities.

THE HORSE POWER CHARTS show the power required to pump against any working pressure with any efficiency of pump and drive.

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CRUDE OIL PRICE QUOTATIONS

Current Postings

CALIFORNIA

Kern River, Wheeler Ridge, McKittrick, Lost Hills, Coalinga, Newhall, Midway, Sunset, Elk Hills

	Feb. 24 1926
14 to 19.9 gravity	.75

La Habra, Whittier

14 to 19.9 gravity	.85
20 gravity	.87
21 gravity	.89
22 gravity	.91

Montebello

14 to 19.9 gravity	.85
20 gravity	.87
21 gravity	.89
22 gravity	.91
23 gravity	.94
24 gravity	.97
25 gravity	1.01
27 gravity	1.04
28 gravity	1.07
29 gravity	1.10
30 gravity	1.13

***Torrance, Richfield, Inglewood, Brea, Olinda, Signal Hill, Huntington Beach**

14 gravity	.85
15 gravity	.87
16 gravity	.90
17 gravity	.94
18 gravity	.98
19 gravity	1.02
20 gravity	1.06
21 gravity	1.10
22 gravity	1.14
23 gravity	1.18
24 gravity	1.22
25 gravity	1.26
26 gravity	1.30
27 gravity	1.34
28 gravity	1.38
29 gravity	1.42
30 gravity	1.46
31 gravity	1.52

*Inglewood and Torrance follow this posting through 28 degrees only.

Lost Hills, Midway, Sunset, Elk Hills

14 to 19.9 gravity	.75
20 gravity	.79
21 gravity	.84
22 gravity	.92
23 gravity	1.00
24 gravity	1.08
25 gravity	1.16
26 gravity	1.24
27 gravity	1.32
28 gravity	1.40
29 gravity	1.48
30 gravity	1.56
31 gravity	1.64
32 gravity	1.72
33 gravity	1.80
34 gravity	1.88

Coalinga, Wheeler Ridge

20 gravity	.91
21 gravity	.92
22 gravity	.93
23 gravity	.95

Wheeler Ridge

14 to 19.9 gravity	.75
20 gravity	.78
21 gravity	.81
22 gravity	.84
23 gravity	.87
24 gravity	.90
25 gravity	.93
26 gravity	.97
27 gravity	1.00

Coalinga

14 to 19.9 gravity	.75
20 gravity	.79
21 gravity	.84
22 gravity	.89
23 gravity	.94

	Feb. 24 1926
24 gravity	.99
25 gravity	1.04
26 gravity	1.09
27 gravity	1.14
28 gravity	1.19
29 gravity	1.24
30 gravity	1.29
31 gravity	1.34
32 gravity	1.39
33 gravity	1.44
34 gravity	1.49
35 gravity	1.54

Signal Hill

31 gravity	1.52

Coyote Hills

14 to 19.9 gravity	.85
20 gravity	.88
21 gravity	.94
22 gravity	1.00
23 gravity	1.06
24 gravity	1.10
25 gravity	1.16
26 gravity	1.24
27 gravity	1.30
28 gravity	1.36
29 gravity	1.42
30 gravity	1.48

Santa Fe Springs

24 gravity	.97
25 gravity	1.05
26 gravity	1.13
27 gravity	1.21
28 gravity	1.28
29 gravity	1.34
30 gravity	1.40
31 gravity	1.46
32 gravity	1.52
33 gravity	1.60
34 gravity	1.68
35 gravity	1.76
36 gravity	1.84
37 gravity	1.93
38 gravity	2.00

Rosecrans, Dominguez

26 gravity	1.30
27 gravity	1.34
27 gravity	1.38
28 gravity	1.42
29 gravity	1.46
30 gravity	1.50
31 gravity	1.52
32 gravity	1.52
33 gravity	1.64
34 gravity	1.70
35 gravity	1.76
36 gravity	1.84
37 gravity	1.92
38 gravity	2.00
39 gravity	2.08
40 gravity	2.16
41 gravity	2.24
42 gravity	2.30

Fuel Oil

Richmond	1.04
El Segundo	1.00
San Pedro	1.00

EASTERN STATES

New York Transit	3.90
Bradford District	3.90
National Transit	3.80
Southwest	3.80
Eureka	3.75
Macksburg	3.30
Gains	2.95
Somerset medium	2.30
Somerset light	2.45
Cabell	2.50
Ragland	1.40
Corning	1.95

CENTRAL STATES

Illinois	2.12
Indiana	2.00
Lima	2.23
Plymouth	1.65

	Feb. 24 1926
Princeton	2.12
Waterloo	1.10
Wooster	2.25

WESTERN KENTUCKY

Posted by Indian Refining Company for crude from Allen, Warren, Franklin, Davies, Barren, Cumberland and Monroe Counties

36 and above	1.80
33 to 35.9	1.70
32.9 and below	1.60

MID-CONTINENT

	Prairie Sinclair* Texas Gulf	Magnolia
Below 28		1.20
28 to 28.9 gravity	1.40	1.40
29 to 29.9 gravity	1.48	1.48
30 to 30.9 gravity	1.56	1.56
31 to 31.9 gravity	1.64	1.64
32 to 32.9 gravity	1.72	1.72
33 to 33.9 gravity	1.80	1.80
34 to 34.9 gravity	1.88	1.88
35 to 35.9 gravity	1.96	1.96
36 to 36.9 gravity	2.04	2.04
37 to 37.9 gravity	2.12	2.12
38 to 38.9 gravity	2.20	2.20
39 to 39.9 gravity	2.28	2.28
40 to 40.9 gravity	2.36	2.36
41 to 41.9 gravity	2.44	2.44
42 to 42.9 gravity	2.52	2.52
43 to 43.9 gravity	2.60	2.60
44 to 44.9 gravity	2.68	2.68
45 to 45.9 gravity	2.76	2.76
46 to 46.9 gravity	2.84	2.84
47 to 47.9 gravity	2.92	2.92
48 to 48.9 gravity	3.00	3.00
49 to 49.9 gravity	3.08	3.08
50 to 50.9 gravity	3.16	3.16
51 to 51.9 gravity	3.24	3.24
52 and above	3.32	3.32

*Sinclair's postings include no oil above 44 gravity.

NORTH AND CENTRAL TEXAS

Ranger, North Texas, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie, Moran, Somerset and Big Lake crude

	Somerset (Grayburg)	Humble O. & R. Co. Texas Co.*
Below 25 gravity		1.08
25 to 25.9 gravity		1.16
26 to 26.9 gravity		1.24
27 to 27.9 gravity		1.32
28 to 28.9 gravity	1.15	1.40
29 to 29.9 gravity	1.25	1.48
30 to 30.9 gravity	1.31	1.56
31 to 31.9 gravity	1.39	1.64
32 to 32.9 gravity	1.47	1.72
33 to 33.9 gravity	1.55	1.80
34 to 34.9 gravity	1.63	1.88
35 to 35.9 gravity	1.71	1.96
36 to 36.9 gravity	1.79	2.04
37 to 37.9 gravity	1.87	2.12
38 to 38.9 gravity	1.95	2.20
39 to 39.9 gravity	2.01	2.28
40 to 40.9 gravity	2.07	2.36
41 to 41.9 gravity	2.13	2.44
42 to 42.9 gravity	2.19	2.52
43 to 43.9 gravity	2.25	2.60
44 and above	2.31	2.68

Corsicana Heavy $1.15 per barrel, posted by Magnolia.

*The Texas Company's postings begin at 28, and Gulf Coast light oil is included in this schedule, posted by The Texas Company.

SOUTH TEXAS

Mirando (Texpata)	1.15
Mirando (Magnolia)	1.15

(Continued on next page)

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Say you saw it in The OIL WEEKLY

GULF COAST

	Feb. 24 1926
Grade "A"	1.30
Grade "B" at Blue Ridge, Hull and Pierce Junction	1.25

LULING

Based on Contract	1.20

LOUISIANA-ARKANSAS

Caddo	
38 gravity and above	2.20
35 to 37.9 gravity	2.10
32 to 34.9 gravity	2.00
Below 32 gravity	1.85
Homer	
35 gravity and above	1.95
33 to 34.9 gravity	1.85
31 to 32.9 gravity	1.75
Below 31 gravity	1.60
Cotton Valley	
All grades	1.10
Haynesville	
33 gravity and above	1.85
Below 33 gravity	1.75
Bull Bayou	
38 gravity and above	2.00
35 to 37.9 gravity	1.85
32 to 34.9 gravity	1.70
De Soto crude	2.05
Crichton	1.85
Bellevue	1.65
Jennings	1.50
Vinton	1.50
Edgerly crude	1.50
Urania	1.50
Smackover (Standard, Gulf, Louisiana, Shreveport-El Dorado and Atlanta)	
27 and above	1.40
26 to 26.9 gravity	1.35
25 to 25.9 gravity	1.30
24 to 24.9 gravity	1.25
Below 24 gravity	1.00
The Texas Company	
27 and above	1.40
26 to 26.9 gravity	1.35
25 to 25.9 gravity	1.30
24 to 24.9 gravity	1.25
Below 24 gravity	1.00
El Dorado	
33 gravity and above	1.85
Below 33 gravity	1.75
East Field (Calion)	.95
Stephens District	
26 gravity and above	1.50
Below 26 gravity	1.30

WYOMING-MONTANA

Wyoming	
Byron	2.25
Ferris	1.53
Elk Basin	2.15
Grass Creek	2.15
Rock Creek	2.00
Lost Soldier	1.10
Lance Creek	2.15
Mule Creek	1.50
Notches	.65
Big Muddy	2.00
Osage	2.15
Hamilton Dome	1.80
Pilot Butte	1.75
Torchlight-Greybull	2.15
Lander	1.10
Salt Creek (Midwest Refining Company)	
29 to 29.9 gravity	1.48
30 to 30.9 gravity	1.56
31 to 31.9 gravity	1.64
32 to 32.9 gravity	1.72
33 to 33.9 gravity	1.80
34 to 34.9 gravity	1.88
35 to 35.9 gravity	1.96
36 to 36.9 gravity	2.04
37 to 37.9 gravity	2.12
Montana	
Sunburst	1.15
Cat Creek	2.15

NEW MEXICO

Artesia	1.70
Hogback	1.95

CANADIAN CRUDE

Oil Springs	2.70
Petrolia	2.63

*Bounty on Canadian crude is ¾ cent per gallon, or 26¼ cents per barrel.

Boling Area Completions 500 Feet from Discovery

By Wallace Davis

Staff Representative

Houston, Texas.—Results of development to the northwest of The Texas Company discovery well off Boling dome, Wharton County, last week proved the territory 500 feet in that direction with two completions by the Atlantic Oil Producing Company with a combined initial of 3200 barrels. Atlantic's No. 2 Taylor, 500 feet northwest of The Texas Company's Taylor 3, blew out at 3004 feet February 17, and flowed wild at the rate of around 2,000 barrels of 25 gravity oil and several million cubic feet of gas for four days before bridging over. The No. 1 Taylor was completed four days later flowing 1200 barrels with 3,000,000 cubic feet of gas. The gravity of this well tested 30.1 Baume at 80 degrees temperature, approximately that of the discovery well. Its location is 300 feet northwest of The Texas Company's Taylor 3.

The present situation at Boling promises to place the field by far the leader in production in the Gulf Coast within the next few weeks. Production from the two flowing wells now barely tops the 5000-barrel mark, but the Atlantic is cleaning out its No. 2 to set screen and three other wells are ready to drill into the sand. The Texas Company is setting screen at 3250 in its No. 4, nearest test to the discovery well, with a good show. Atlantic's No. 3 is reaming to set in a show at 2970 feet and the Sun Company is preparing to drill into a sand at 3,000 feet.

Sinclair and the Oxford Oil Company are due to have production at Boling within a week. Sinclair's No. 1, offset to Atlantic's No. 1, is setting casing at 2909 feet, and Oxford's Autrey-Floyd No. 1, more than 1000 feet from the present production on the northwest is 2920 feet with 14 feet of gas sand. The company set a blowout preventer early this week due to the enormous gas pressure.

The Humble and Gulf, drilling on the northwest and southeast sides of production respectively, show promise of nearing the productive sands within the next 10 days. The Gulf's Chase No. 1, drilling several thousand feet away from production to determine the edge of the dome, had an interesting turn last week when after drilling below 1700 feet in dome formation the drill entered blue gumbo. This formation has continued consistently to the present depth of 2432 feet. If production is found in the Chase 1, practically the entire 400-acre Taylor lease of The Texas Company will be proven for production. In its Hawes No. 1, located in the northeast corner of the E. Hawes 74 acres of the Humble and Gulf, Humble is setting casing at 1880 feet in sand rock.

25,000 Barrels

Coastal operators predict a 25,000 daily run from the Boling field within the next 60 days. In the event the new wells hold up to the strength of the discovery well comparatively this estimate is conservative. The strong gas pressure at the same depths of the oil sands has greatly incumbered drilling activity in the field and hurried completions will no doubt be checked considerably in the future drilling.

The Vacuum Oil Company has opened activity at another section with the location of its No. 1 Hooper 50 feet from the northeast corner of the Hooper 100-acre lease, and about 2,000 feet to the west of the discovery well. The Sun Company offset Vacuum with its No. 5 Taylor, and last week made location for the Nos. 3 and 4 to be drilled 200 and 400 feet respectively to the south of the No. 1, which offsets Atlantic's No. 1 to the southwest.

Aside from the three completed wells Boling has 21 locations, 16 of which are drilling.

Production is yet being handled out of the field by tank car. Production from The Texas Company's well is being run through a four-inch line to Boling and loaded out to the company's refinery at Port Arthur. Atlantic's production is being run to a temporary loading rack at the nearest point on the G. H. & S. A. tracks, about three-quarters of a mile from the wells. Atlantic has five 5,000-barrel storage tanks completed.

The Texas Company's confidence in Boling field is exemplified by an eight-inch pipe line being run to the field from West Columbia, a distance of 16½ miles. More than 12 miles of the line have been laid and completion is expected by March 10 at the latest. Two storage tanks of 37,500 barrel capacity each are now under construction by The Texas Company about a mile from the production. Boling crude of The Texas Company after completion of the pipe line will be run direct to Port Arthur by West Columbia.

Boling crude will no doubt be a disturbing factor in coastal crude prices if future completions around the Atlantic's Taylor 2 and further to the northwest yield 25 gravity oil and heavier. Such production is indicated as this completion shows production in that direction to be a heavier grade.

COMPLETIONS FOR PAST WEEK IN U.S. FIELDS

Summarized Review of Field Results

State—	Completions This Week	Completions Last Week	Producers This Week	Producers Last Week	Gas Wells This Week	Gas Wells Last Week	Failures This Week	Failures Last Week	Initial Production This Week	Initial Production Last Week
Arkansas	16	18	10	11	..	5	6	2	690	760
California	18	17	18	17	..	..	..	..	7,769	8,826
Colorado	..	1	..	..	..	..	..	1	....	.....
Indiana	..	2	..	..	..	..	..	2	....	.....
Illinois	4	..	1	..	..	..	3	..	2	.....
Kansas	28	34	10	20	1	..	17	14	865	3,636
Kentucky	21	23	18	18	1	1	2	4	247	162
Louisiana	15	18	9	12	..	1	6	5	1,165	1,110
Michigan	..	..	..	..	..	..	..	..	....	.....
Mississippi	..	..	..	..	..	..	..	..	....	.....
Montana	1	2	..	2	..	..	1	..	....	5,000
New York	9	6	9	6	..	..	..	..	28	55
New Mexico	1	1	1	1	..	..	..	..	100	75
Ohio	23	42	19	24	4	12	..	6	355	618
Oklahoma	81	102	43	51	7	5	31	46	21,985	6,705
Pennsylvania	45	35	36	27	7	7	2	1	722	124
Tennessee	2	2	..	..	..	..	2	2	....	.....
Texas	112	122	66	73	4	6	42	43	17,432	18,945
Utah	..	..	..	..	..	..	..	..	....	.....
West Virginia	24	28	7	9	10	16	7	3	70	118
Wyoming	4	8	4	7	..	..	..	1	550	1,433
Totals	404	461	251	278	34	53	119	130	51,980	47,567

NOTE—Following is the explanation of abbreviations, signs, etc., used in completion and wildcat reports: *—dry hole, abandoned well; ‡—salt water; †—junked and abandoned; ¶—million cubic feet of gas; abn—abandoned; bbls—barrels; b. s.—basic sediment; cas—casing; co—cleaning out; dk—derrick; dr—drilling; fsh—fishing; ft—feet; in—inches; loc—location; m—milling N. S. E. W.—North, South, East, West; r—reaming; sd—shut down; sdtr—sidetracking; sp—spudding; sr—straight reaming; std—standardizing; sw—salt water; td—total depth; ur—under reaming; wo—workover; wosr—waiting on standard rig.

Texas

ARCHER COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Burns-Maxson et al A. P. Jackson 1	30	1552
Roy I Carter et al Turbeville 1	*	1353
A. Cohen et al L. F. Wilson 5	25	1583
Consolidated Oil Co. Cowan 2	*	1460
Kreeger 3	*	1480
Empire Gas & Fuel Co. L. F. Wilson 4-A	*	1753
Grisham & Continental Oil Co. L. F. Wilson 1	*	1651
Gulf Prod. Co. P. Siegel 13	30	900
J. F. Rogers 12-A	*	1506
A. P. Nichols 23	105	1553
L. F. McCrory 3-C	40	1403
M. W. Jackson 1-A	100	1557
T. B. Wilson 3	5	1595
Power Banking Co. 1	80	1398
Hardy & Underwood et al L. F. Wilson 1	*	1654
Humble O. & R. Co. L. F. Wilson 6	30	901
Kentucky Oil Corp. J. B. Miller 8	7	912
Magnolia Pet. Co. Cowden-Portwood 8	20	1417
M. & V. Oil Co. Kunkel 4	300	1174
Muse-Robertson et al A. P. Jackson 2-B	5	1542
Norday Oil Co. Anderson 6	40	1423
Pandem Oil Corp. Young 1-A	*	1500
Hutcherson 6	30	1390
Prairie O. & G. Co. Kreeger 1	15	1423
Kreeger 3	20	1420
Primrose Ref. Co. & Pet. Prod. Co. Wolf 4	30	1352
Roxana Pet. Corp. Kreeger 2	10	1428
Ray-Featherstone Oil Corp. A. P. Nichols 15	15	1623
Shappell Oil Co. Jackson 39	70	1805
Texhoma (Continental O. & R. Co.) D. L. Wolf 4	*	1391
Texas Unity Oil Co. Morrison 1	*	1450
Wampem Oil Corp. Kreeger 3	85	1417

BURKBURNETT

Company, Well and Location	Initial Production Bbls.	Depth
Magnolia Pet. Co. SLC-Beach 14	20	976

ELECTRA

Company, Well and Location	Initial Production Bbls.	Depth
Dale Oil Corp. Jennings 20	25	1843
Empire Gas & Fuel Co. Pierce 17	*	1990
Gulf Prod. Co. Burnett 35-A	85	1535
G. Jennings 17	10	1491
T. L. Waggoner et al 8-C	15	1312

K-M-A AND IOWA PARK

Company, Well and Location	Initial Production Bbls.	Depth
Cooper-McLaughlin et al Love 1	*	1851
John O'Neil et al Woodward 1	*	2001
Petroleum Prod. Co. A. & K. 1-D	40	1755

SOUTH VERNON DISTRICT

Company, Well and Location	Initial Production Bbls.	Depth
Barkley-Meadows et al Stephens 5-B	100	2370
Gray Oil Co. Waggoner 1, (Sec. 17)	*	2406
Gulf Prod. Co. Waggoner 4-R	50	1935
Humble O. & R. Co. Stephens 41	265	2290
Landreth Prod. Corp. Waggoner 4-D	*	2638
Waggoner 11-D	115	1876
Jim McCamey et al Waggoner 1	*	2450
McCamey-Sherrin & Lucey's Stephens 18	¶2	1360
Stephens 32	35	1265
South Vernon Oil Co. Zipperle 1	*	2400

CLAY COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
M. J. Sullivan et al Bullington 1	*	1300

MONTAGUE COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Benton-Woods et al R. Hinds 2	110	970
Texhoma O. & R. Co. Rowland 4-A	60	1379

THROCKMORTON COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Humble O. & R. Co. Stubblefield 2	130	3248
McDonald-Smith et al Upshur County Fee 2	15	1313

HASKELL COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Wolf et al Colbert 1	*	1602

BROWN COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Canyon O. & G. Co. Koenig 1	*	1709
J. S. Cosden et al Westerman 1	650	1301
Conway Bros. et al Pickett 3	55	1299
Gillespie et al Newton 1	35	1339
Mulloy-Chandler et al Prather 5	15	1305
Robert Oil Corp. Smith 1	*	1250

COLEMAN COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Canyon O. & G. Co. Harris 1	*	3130
Gilman et al Aston 1	*	2515
McLester Oil Co. McDermott 1	*	2690
Merry Bros. et al McClellan 1	*	1610

EASTLAND COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Eastland Oil Co. & Chestnut & Smith White 1	*	3530
Magnolia Pet. Co. P. O. Harris 9	*	1860
Pitzer & West et al Martin 1	*	3355
States Oil Corp. Hise 1	65	3473

PALO PINTO COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Adams et al Pollard 2	*	4075

SHACKELFORD COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Carter et al Proctor 1	*	2000
Roeser-Pendleton & Marland Oil Co. W. I. Cook 1	1000	1242

Congress Compromises Depletion Allowance

Washington, D. C.—A depletion of 30 per cent has been allowed on the revenue bill for oil and gas wells, under an agreement reached February 19 by the conference committee in charge of the measure.

This is a compromise between the House provisions dealing with the subject and the 50 per cent which the Senate voted to allow when it passed the bill on February 12.

As carried in the bill, this provision states that "in the case of oil and gas wells the allowance for depletion shall be 30 per centum of the gross income from the property during the taxable year. Such allowance shall not exceed 50 per centum of the net income of the taxpayer (computed without allowance for depletion) from the property, except that in no case shall the depletion allowance be less than it would be if computed without reference to this paragraph."

STEPHENS COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
J. Alvin Gardner & Collins et al Cunningham 2	40	3192
Mid-Kansas O. & G. Co. Hill 8	35	3185

YOUNG COUNTY

Atlantic Oil Prod. Co. et al Chandler 1	*	903
Wainscott 1	*	1400
Bridwell-Mayfield et al Street 2	*	1325
Camp O. & G. Co. Campbell 3	10	915
Carey et al Thomas 1	*	1005
Daniels et al Hayler 1	*	1004
Golding-Cochran et al McClatchey 1	*	1002
Rowe Drilling Co. Hamilton 9	*	1228
Wright et al Hayley 1	*	1004

EAST TEXAS

Waskom Gas Field, Harrison County—		
Woodley & Collins Abney 1, J. Bryant H/R survey	¶44	1970

GULF COAST

Spindletop—		
Gulf Prod. Co. Gladys 215, wo	100	850
Batson—		
The Texas Co. Lejarza 1	*	3900
Paraffine Oil Co. Paraffine 64	20	850
Sour Lake—		
Gulf Prod. Co. Tarver-Hardin 60, wo	100	1950
Hull—		
Gulf Prod. Co. Phoenix Dev. Co. 57, wo	75	2850
Phoenix Dev. Co. 60	125	3000
Republic Prod. Co. Dolbear 44, wo.	100	2400
Dolbear 59, wo	2000	2400
Higgins Oil & Fuel Co. Merchant 5, wo	125	3130
West Columbia—		
Gulf Prod. Co. A. Underwood Fee 3, wo	*	3375
Humble O. & R. Co. L. J. Wilson 2, wo	50	3975
Melgard-Wilson 1, wo	*	4000
Blue Ridge—		
Gulf Prod. Co. Bassett Blakely 13-C	400	3800
Pierce Junction—		
Navarro Oil Company Cain 1	500	3850
Orange—		
Gulf Prod. Co. O. Chesson A-1, wo.	1300	4600
Lee Hager Fee 8, wo	1500	4600
Lee Hager Fee 20	900	4600
Big Creek—		
Gulf Prod. Co. Davis 27	600	2600
Goose Creek—		
The Sun Company B. Smith 15	100	2600

California

Company, Well and Location	Initial Production Bbls.	Depth
Long Beach—		
Bess Oil Co., Cerritos 1	500	4405
Robert Burns' 1	500	4455
Featherstone-Preston's Cerritos 15.	200	4440
Geo. W. Johnson's Cerritos 2	125	4392
Lindauer Oil Co.'s 3	1400	4454
Painted Hills Oil Co., Cerritos 9	600	4450
Retsof Drilling Co. Cerritos 77	400	4380
Star Pet. Co. Cerritos 1	250	4485
Frank Travers Cerritos	300	4380
Tehriot & Young Cerritos	200	4408
Herb L. Whiston 3	300	4430
Baldwin-Hills-Inglewood—		
Standard Oil Co.'s L. A. Investment 1-39	1800	2600
Torrance-Redondo—		
Shell Co.'s Redondo 8	125	3560
Montebello—		
McGinley Oil Co.'s 19	175	3522
23	125	3570
Midway—		
King G. Gillette's Bell A1	38	1035
Bell B1	606	1085
Elk Hills—		
McKeon Oil Co.'s Section 6	125	3315

Mountain States

WYOMING

Pine Mountain—		
Casper Gas Synd. No. 1, SE¼ 26-35-84	¶	1809
Lost Soldier—		
Producers & Refiners Corp. No. 8WI 11-26-90	275	2440
West Salt Creek—		
Mosher-Dyke No. 2, NE¼ 33-40-79	200	1510
Salt Creek—		
Continental Oil Co. No. 2A, SW¼ 32-40-78	75	....

MONTANA

Kevin-Sunburst—		
Ohio Oil Co. No. 13K, 15-35-2	*	1545

NEW MEXICO

Eddy County—		
Ohio Oil Co. No. 7NS 5-18-28	100	2365

WYOMING

Salt Creek—		
Wyoming Oil Fields Co. No. 24 SW¼ 25-40-79	100	1247
Midwest Oil Co. No. 6L NE¼ 2-39-79	543	2400
Continental Oil Co. No. 30A SW¼ 32-40-78	25	2400
No. 13A SW¼ 3-40-78	65	2634
No. 2A SW¼ 32-40-78	50	....
Midwest Refining Co. 25-40-79	*	4120
Lost Soldier—		
Prairie Oil and Gas Co. 11-26-90	350	2039
Grass Creek—		
Midwest Refining Co. No. 16	300	4101

MONTANA

Kevin-Sunburst—		
Dakota-Montana Oil Co. No. 4 NW¼ 31-35-1	2000	1500
Homestake Exploration Co. NE¼ 36-35-2	3000	1480

COLORADO

Wellington—		
Seneca Oil Co. No. 1K 8-9-68	*	540

NEW MEXICO

Eddy County—		
Flynn, Welch & Yates No. 33 3-18-28	75	2445

Louisiana

Caddo Parish—		
Bratcher et al's Files 1, 10-20-16	50	2270
Double I Oil Co.'s Spell 6, 15-21-15.	60	1700
Stannfer et al's Starcke 1, 17-23-16	*	2012
Total, 3 wells	110	
Elm Grove Field—		
Palmer Corp.'s Caplis 9, 25-16-12	40	1556
Cotton Valley Field—		
Fortuna Oil Co.'s Cox 2, 23-21-10	*	2690
Ohio Oil Co.'s Higgins-Cox 2, 16-21-10	20	2544
Total, 2 wells	20	
Western Extension of Caddo Field, Marion County, Texas—		
Atlantic Oil Prod. Co.'s Sedberry 1, Martin G. Nall Headright Survey	115	2376
Urania Field, La Salle Parish—		
J. E. Cox's Tullos 1, 26-10-1e	150	1541
Louis Hamilton et al's Bennett 1, 25-10-1e	500	1540
Louisiana Oil Ref. Corp.'s Russell Fee 1, 25-10-1e,	300	1534
Tremont A-3, 30-10-1e	25	1556
Total, 4 Wells	975	

Arkansas

Stephens Field, Columbia County—		
Magnolia Pet. Co.'s Rhinehart 6, 36-15-20	10	2199
El Dorado East Field, Union County—		
Clement Oil Co.'s Moody 4, 17-17-14	*	2880
Russell et al's Brown 1, 8-17-14	*	2914
Lisbon Field, Union County—		
Simms Oil Co.'s Dumas A-1, 9-17-16	50	2075
Smackover Field, Ouachita County—		
Humble O. & R. Co.'s Arnold B-9, 26-15-16	30	2019
Imperial O. & G. Co.'s McClanahan 9, 6-16-15	50	2562
Magnolia Pet. Co.'s Clawson 2, 35-15-17	*	2995
Smackover Field, Union County—		
Bostic Drilling Co.'s Hodges 2, 12-16-17	15	2296
Sam Cook's Tatum 8, 7-16-15	45	2401
E. M. Jones' Murphy 1, 17-16-15	150	2507
Murphy 8, 17-16-15	250	2502
Lion O. & R. Co.'s Murphy D-5, 8-16-15	50	2454
O. G. Murphy's T. C. Murphy 4, 9-16-15	40	2475
Page et al's Bernett 1, 11-16-18	*	2341
Total, 10 wells	630	
Irma Field, Nevada County—		
Steele et al Ellis 1, 2-14-21	110	1150
Smackover Field, Ouachita County—		
Humble Oil & Ref. Co. Arnold B-9, 36-15-16	35	2020
Woodley Pet. Co. Richardson 4, 29-15-15	90	2072
Smackover Field, Union County—		
Anderson et al's Murphy 2, 15-16-15	*	2770
Federal Pet. Co. Ballard 6, 10-16-15	65	2573
Gulf Ref. Co. Werner Saw Mill Co.		

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Company, Well and Location	Initial Production Bbls.	Depth
45, 6-16-16	30	2258
Harrell et al's Carroll 1, 7-16-16	40	2324
E. M. Jones Murphy 7, 17-16-15	150	2530
Lion Oil & Ref. Co. Lawton B-3, 10-16-15	¶10-35	2629
Murphy G-6, 8-16-15	¶35	2665
Little Fay Oil Co. Harrell 5, 17-16-15	¶30	2715
Magnolia Pet. Co. J. Goodwin 9, 5-16-15	130	2555
J. Goodwin 10, 5-16-15	¶20	2534
Natural Gas & Fuel Corp. Flenniken 4, 8-16-15	¶45	2755
Rovenger Oil Corp. Dumas 2, 9-17-16	160	2090
Simms Oil Co. Cook 5, 16-16-15	105	2450
Thurman et al Wilson 4, 6-16-15	45	2570
Total, 14 wells	¶140-760	

Oklahoma

Company, Well and Location	Initial Production Bbls.	Depth
Carter County—		
Skelly Oil Co., McClish 1, C SE NW NW, 21-2s-3w	*	3986
Creek County—		
J. B. Grieves, Knight 1, NEc NW 24-19-8	50	3049
Bu-Vi-Bar Pet. Co., Wyatt 1 NEc NW SW 11-17-8	¶3	2813
Alvard & West, Freeman 1, SEc NE SW 14-17-8	140	2302
Madden & Madden, Hawkins 1 NWc SW SW 31-18-10	35	2380
Terrell et al, Imley 1 SWc 4-18-11 owd	10	1902
Prairie O. & G. Upton 7 SWc NW NE 4-16-12	¶5	1723
Carter Oil Co., Grayson 2, owd SWc NE NW 25-17-10	*	3736
J. H. Wright, Goody 3, SWc NE NW 25-17-10	*	3327
Garfield County—		
Sinclair O. & G. Co., Walker 24 C NE NE NE 13-22-4w	5750	4321
Walker 28 C NW SE NE 13-22-4w	¶5	4321
Imo Oil Co., McLean 5 C S L NE NW 31-22-3w	150	2212
Hughes County—		
Gypsy Oil Co., Long 1 C NE SE SE 27-9-9	750	3367
Carter Oil Co., D. Cain 4 C NW SW SE 1-9-9	*	3396
Arkansas Fuel Oil Co., H. Far 1 C SW NW NE 26-9-9	*	3485
Champlin et al C NE NW SW 24-8-8	*	3302
Kay County—		
Comar Oil Ci., Dnucan 7 NE C NW SW 21-29-1w	100	2081
Blackwell O. & G. Massey 1 SWc NW 8-27-1	100	2150
Marland Oil Co., Thomas 1 C SW SW SW 15-25-2w	10	2150
M. F. McComas, McClelland 1 C NE NE SW 24-27-1w	*	4230
Golconda Oil Co., Welge 1 SWc NW 29-27-2e	*	3874
Lincoln County—		
Gypsy Oil Co., Caves 6 SEc 35-15-5	30	3437
Amerada Pet. Corp., Hopkins 1 NWc NE SE 2-14-5e	900	3372
Magnolia Pet. Co., Sukovaty 15 NWc NE SW 2-14-5	325	3374
Skelly Oil Co., Hopkins 4 SEc SW NE 2-14-5	350	3325
Texas Co. Hopkins B 3 NEc NW SE 2-14-5	300	3370
Gypsy Oil Co., Caves 4, NEc NW 11-14-5	860	3384
Okfuskee County—		
J. Burns Cinda 1, NEc SE NE 12-12-10	290	2718
Keaton et al, Larsey 2 C E L NE NE 12-12-11	40	2573
Windsor Oil Co., Jacobs 3 SEc 15-11-11	¶20	2092
Fisher et al, P. Birdcreek 1 SEc 7-10-12	120	1812
Detrick et al, Foreman 1 SEc 1-13-10	*	4230
J. E. Dow, A. Bird 1 SEc NW 14-12-11	*	3600
Windsor Oil Co., Unalloted 1 SEc SW NW 15-21-11	*	3600
M.K.I.P. Oil Co., Bentie 15 NEc NW SE NE 36-12-11	*	3325
Okmulgee County—		
Nowata O. & R. Co., Gibson 3 SEc NE SE 4-15-11	15	1930
W. B. Pine, B. Doyle 7 NWc NE NW 18-15-13	50	2711
Transcontinental Oil Co., Beams 1 SWc NW 3-15-14	¶9	1501
Papoose Oil Co., Rentie 6 SWc SW SW 11-14-14	20	1786
J. J. Callahan 2-A Doyle C N L SE SW 15-13-14	40	1650
Roxana Pet. Corp. Scott 4 NWc SW SE 15-13-14	250	2445
Lambert Segrao 2 SEc NW NW	¶¼	1037
Booch et al, Kennedy 1 NEc SE NE 15-15-12	*	2876
Magnolia Pet. Co., Tiger 1 C SW NW 4-12-12 . owd	*	4035
Pulaski Oil Co., A-1 Adams NWc 33-14-14	*	2287
Invader Oil Co., Miller 15 NWc NE SW 16-14-13	*	2943
J. H. Rebold, Morton 3 SEc NE 16-13-14	*	3525
A. Shelton, Bearer 1 SEc NE SW 20-13-15	*	850
Kewanee Oil Co., Brown 1 NEc SE SW 1-11-13	*	....
Sturdivant Coody 1 NWc SW SE 1-11-13	*	3074
Osage County—		
Beacon Oil Co., 7 SWc NE SW SE 27-29-11	60	1030
Indian Territory J. O. Co. No. 1, SWc NW 2-28-11	5	980
Phillips Pet. Co., 16 NEc SE 2-27-5	3150	2967
I. T. I. O. Co., 338 SWc NW SE NE 27-25-11	100	1238
Peters Pet. Co., SWc NE SW NE 32-24-9	15	1587
7 SWc SE NW SE 12-23-8	75	2155
Calvin et al No. 6 SEc NW SW SE 5-20-11	30	2426
Winona Oil Co., No. 3, SEc NE 29-20-12	200	2049
Owen Osage 357 SWc NW SE 22-28-10	*	2173
Northland Gasoline Co., 66 SEc SW SE NE 32-26-12	*	1635
Superior Oil Co., C E L W half NE SW 29-20-11	*	2499
Pawnee County—		
Privett Drilling Co., Garner 1, NEc SE 3-20-6	¶7½	3025
Magnolia Pet. Co., Lesher 4, owd NEc 21-20-6	265	3117
Sinclair O. & G. Brentenall, owd SWc NE 10-20-8	90	2586
Southwestern Oil Fields Corp., Wasson 18 C W L SW NW 24-20-8	65	2743
Sinclair O. & G. Brian 1, NWc NE 27-23-4	*	3285
Pulaski Oil Co. Strip 9, SWc SE SW SE 26-21-8, owd	*	....
Ora Stein Kimball 1, NWc NE NE 21-20-7	*	2945
Payne County—		
Mulberry Oil Co. Payne 2, SEc 31-18-4	¶15	3647
Shaffer O. & R. Co. Laughlin 15, NEc NW NE 2-18-5	50	3450
Pontotoc County—		
American O. & R. Co. Witherspoon 2, SWc NE NE 17-4-6	*	2170
Lloyd & Smith Hughes 1, NEc SE NW 6-3-7	*	1272
Seminole County—		
Dixie Oil Co. Walker 4, C NW NE SE 29-8-8	10	3850
W. R. Ramsey Amos 1, C NE SE SE 31-8-8, owd	60	4065
Magnolia Pet. Co. Franz 3, C SW SW SW 32-8-8	2000	4071
Berry Pet. Co. Hill 1, C SW NW NW 8-9-8	*	3408
Tulsa County—		
Frates Oil Co. McHenry 5, SWc SE NE 1-17-14	45	1314
Sewell Pet. Co. McIntosh 2, NWc SE 25-17-16	40	1309
Holmes et al Henry 1, C N L NW SE 22-19-10	*	2154
Hall & Dozier Berryhill 2, NWc SE SW 1-17-14	*	1410
Waggoner County—		
M. W. Metzger J. Lewis 1, SWc SE SE NW 35-17-16	*	1520
Sewell Pet. Co. McIntosh 2, NWc SE 25-17-16	40	1310

Kansas

Company, Well and Location	Initial Production Bbls.	Depth
Butler County—		
Travis et al Knutson 6, C NE NW 11-27-5	10	2706
Empire G. & F. Co. Wilson 161, C N L S½ S½ NW 8-25-5	*	715
Brennon et al Wilhite 2, NEc SW SW 27-26-7	*	2719
Chase County—		
Dingee et al Crosby 1, NEc SW 23-22-9	*	2537
Clark County—		
Watchorn O. & G. Co. Morrison 1 SEc NE NE 20-32-21	*	2679
Cowley County—		
Arkansas Fuel Oil Co. Erickson 1, SWc 20-30-4	*	3400
Elk County—		
Anderson Bros. Logadon 4, C SW SE 16-31-9	¶4½	1468
Southwestern Gas Co. Webb 11, NWc NE NE 14-31-10	75	1350
Neeley O. & G. Co. Baker 1 SEc 20-31-10	30	1555
Kansas Central Gas Co. Lawyer 1 C E½ NE SW 16-31-9	*	1472
Litteral et al Eyman 1, SWc SE NE 9-31-10	*	1587
Theta Oil Co. Waller 2, SWc NW NW 26-31-10	*	1411
Greenwood County—		
The Texas Co. Prather 3, SWc NW SW 29-22-10	180	2430
Phillips Pet. Co. Hillard 4, C E L SE SE 33-22-11	100	1940
Davis et al Scott 1, SEc NE SW 24-23-8	50	2630
Mission Oil Co. 7-B Dales NWc SE NW 25-23-8	100	2538
Haverhill Pet. Co. Inthram SEc 4-23-13	20	1604
Simmons et al Harris 3, C E L NE NW 19-22-11	*	2205
Phillips Pet. Co. Coffman NEc NW NE 30-22-11	*	2295
Tidal Oil Co. Noler 2, NWc NE SW 10-23-9	*	2468
McGinnis et al Wallace 1, SEc SW SW 11-25-9	*	2700
National Ref. Co. Wallace 1, SEc SW SW 11-25-9	*	2700
Empire G. & F. Co. Lewis 1, C NE NW 24-27-8	*	1260
Lyon County—		
Fisher Oil Co. O'Connor 1, SWc NW 9-21-13	*	1821
Marion County—		
Sheedy et al Allison 4, NWc NE 24-21-4	125	2399
Empire G. & F. Co. Swoboda 1, SWc 22-18-5	*	2350
Connell et al Coyne 1, SWc NE 14-21-4	*	2607
Rice County—		
Prairie O. & G. Co. Miller 1, NEc NW SW 35-20-6	175	3460

Eastern States

PENNSYLVANIA

Bradford Field—		
South Penn Oil Co. Bingham 499 tract 45	3	....
South Penn Oil Co. Bingham 570 tract 108	3	....
South Penn Oil Co. Fee 38	5	....
South Penn Oil Co. Hodge 1	2	....
South Penn Oil Co. Whipple 2	2	....
Petroleum Rec. Co. Pratt 10	4	....
Petroleum Reclamation Co. Mott 1	3	....
Mrs. Joseph T. Jones Fee 3	3	....
R. C. Lloyd, Ekas 10	4	....
Hazlewood Oil Co. Bingham 114	2	....
C. B. Kervin, Baldwin 1	3	....
Forest Oil Co. Baldwin 1	4	....
T. H. Kervin Jr., Kapp 1	4	....
J. L. Yerden, Bingham 2	4	....
E. Jack, Jack 23	2	....
Dunsmore & Co., Ault 2	2	....
Hilltop Oil Co., Hilltop 35	4	....
H. B. Oil Co., Bingham 1	3	....
Hifler & Minnich, Kervin 1	3	....
Webb Estate, Webb 1	3	....
Storms & Coast, Hanes 1	3	....
S. J. Sprague, Sprague 4	3	....
Burdick & Wright, Bingham 374,		

Company, Well and Location	Initial Production Bbls.	Depth
tract 4	2	....
Bovaird & Park, Bingham 540, tract 33	3	....
Healey & Daly, Bingham 500 tract 25	3	....
Greene County—		
Natural Gas Co. of West Virginia, T. F. Rutan 3	600	....
Carnegie Natural Gas Co., James Rutan 2	20	....
Vinton Blaker 1	¶2	....
H. B. Weaver 1	¶2	....
J. W. King 1	¶2	....
Manufacturers Light & Heat Co., Lucy McCracken 1	¶2	....
Venango County—		
C. B. Kern, Kern 13	2	....
Peoples National Bank Co. & Co., Phipps 10	2	....
McMahon, McLane & Co., Slaughenhaupt 5	2	....
A. W. Hughes, Hughes 21	2	....
Exchange Nat. Bank of Franklin, Graham 34	2	....
Butler County—		
Bear Creek Oil Co., Donnelly 1	7	....
T. W. Phillips Oil & Gas Co., Ball 1	¶1½	....
Turner & Vogt, Bell 1	¶1½	....
McClay Bros., Goehring 2	*	....
Clarion County—		
Alum Rock Gas Co., Beicher 7	3	....
Knoppenberger & Co., Knoppenberger 1	3	....
W. T. McKissick, McKissick 6	¶1	....
Center-Middle Field—		
D. Wade, Irvine 1	2	....
W. C. & A. E. Tompsett, T. I. W. tract 93	*	....

NEW YORK

Allegany County—		
Citizens National Bank Co., Reid 3	5	....
Howard & Phillips Howard 1	5	....
Sadie Sawyer Sawyer 1	4	....
State Bank of Bolivar Fee 28	2	....
Empire Gas & Fuel Co. Fee 1	3	....
W. O. & C. O. Taylor Taylor 1	2	....
Bert Maitland & Co. Fee 28	2	....
C. D. Henline & Co. Henline 1	2	....
M. J. Crowley Crowley 5	3	....

WEST VIRGINIA

Wetzel County—		
Hope Construction & Refg. Co., J. A. Riter 5	2	....
R. C. Gover Oil & Gas Co., H. C. Gover 1	¶2	....
Carnegie Natural Gas Co., J. E. Kimble 1	*	....
Manufacturers Light & Heat Co. Donley Renner 1	¶2	....
Roane County—		
United Fuel Gas Co., M. M. Carper 1	¶2	....
G. W. Osborne 1	¶2	....
G. W. Sarver 1	¶2	....
Godfrey L. Cabot, Nettie Kincaide 1	¶½	....
Ritchie County—		
John Starcher, Metts heirs 2	*	....
Swingle Oil & Gas Co., Keller heirs	*	....
Carnegie Natural Gas Co., A. I. Kelley 2	¶1¼	....
A. L. Davidson 1	*	....
Putnam County—		
Teays Producing Co., Fannie Simmons 1	18	....
Unknown Parties, S. B. Griffith 1	10	....
Tyler County—		
Albert Neeley, Eliza Henderson 1	*	....
Knowlton & Thomas, Goff Hayes 1	*	....
Clay County—		
Ohio Fuel Oil Co., J. B. Casto 7	25	....
Doddridge County—		
J. E. Trainer, R. E. Kelley 1	7	....
Marion County—		
Clifton Oil & Gas Co., O. N. Koen 4	5	....
Wood County—		
Hinds Peevey, Hebrank-Rapp heirs 3	3	....
Lincoln County—		
Foote Oil & Gas Co. Lee Lawson 1	¶1¼	....
Monongalia County—		
Carnegie Natural Gas Co., H. B. Weaver 1	¶1½	....
Harrison County—		
Grasselli Chemical Co., Mary E. Norman 1	¶2	....
Marshall County—		
Narrows Oil & Gas Co., Samuel Morris 1	*	....

KENTUCKY

Johnson-Magoffin Counties—		
Fych Oil & Gas Co., Licking River tract 7	¶2½	....
Clyde Oil Co., McCormick 2	4	....
Willson & Co., Vinson heirs 2	3	....
Lawrence-Johnson Counties—		
Union Gas & Oil Co., R. N. Sparks No. 2 tract 6	4	....
Townsend & Garrison, L. N. Hay 4	6	....
Lee-Owsley Counties—		
Fleming & Combs Bros. Elmer Evans 2	3	....
Owensboro District—		
Chicago Petroleum Syndicate, Guenther-Gant 2	130	....
Leeper Oil Co., Stewart 11	3	....
Petroleum Exploration Co., H. Gour 1	*	796
Warren County—		
Lincoln Oil Producing Co., C. E. Snell 3	15	1090
Onsel-Hanrahan Oil Co., Brownfield 9	15	1177
Estill County—		
Childs & Miller, Andy Isaacs 2	3	....
C. O. Amsler & Co., Reid heirs 2	5	....
Barren County—		
Local Oil Co., Matthews 1	*	....
Wood Oil Co., W. M. Church 12	7	540
Hauck Bros. 9	8	504
Wayne County—		
Shearer, Marsh & Co., J. Hatfield 1	15	....
Allen County—		
Victor Decaigney, Thrattan 7	2	440
A. E. Meffert, W. E. Oliver 15	4	380
Elliott County—		
Edra Lee Oil & Gas Co., J. Dials 3	10	....
Wolfe County—		
Petroleum Exploration Co., Spicer heirs 2	10	....

TENNESSEE

Clay County—		
Unknown Parties, Stillhouse Creek tract 1	*	....
Fentress County—		
Phelps & Co., Head of Wolfe Creek 1	*	....

SOUTHEASTERN OHIO

Washington County—		
Peoples Banking & Trust Co. Hoff 20	2	....
Morgan County—		
The Sun Oil, Josephine Longstrath 3	¶¼	....

CENTRAL OHIO

Licking County—		
Hope Construction & Refining Co., Jacob Vandenwenter 13	115	....
The Pure Oil Co., J. D. Morehead 1	5	....
Ohio Fuel Supply Co., E. J. Kelley 1	¶2	....
Frank Dush 1	*	....
Holmes County—		
Empire Gas & Fuel Co., Elmer E. Conner 3	10	....
Ohio Oil Co., Robert Reed 1	¶3	....
East Ohio Gas Co., Alva W. Graham 1	*	....
Knox County—		
Margget Oil Co., C. H. Davidson 3	10	....
The Pure Oil Co., M. Gann 1	*	....
Perry County—		
Ohio Fuel Supply Co., George Ice 1	5	....
Frederick Mechlin 1	¶¼	....
Muskingum County—		
Mideast Oil Co., W. D. Porter 1	*	....

NORTHWESTERN OHIO

Hancock County—		
Baseline Oil Co., Dan Bish 1	30	1337
C. Hoffman 4	25	1390
R. T. Rittenhouse Co., Frank Freed 2	10	1386
Clark & Star, Jane Wheeler 4	25	1400
West End Oil Co., A. Foltz 1	25	1340
Jenera Oil & Gas Co., Edward Boutwell 3	2	1371
Ottawa County—		
Cawtaba Oil & Gas Co., John Landy 1	60	1990
Sandusky County—		
Ohio Oil Co., H. Kinker 3	16	1366
Wood County—		
David Eckler, L. Kramer 34	15	1396

ILLINOIS

Wabash County—		
J. S. Young Jr., & Co., W. W. Barney 1	2	1391
W. W. Barney 2	*	1435
D. H. Price 2	*	1426
Hupp, Duff & Co., L. G. Stillwell 1	*	1540

WILDCATS FROM ALL SECTIONS

Central West Texas Wildcats

COMPLETION

Company, Well and Location	Initial Production Bbls.	Depth
Reagan County—		
Texon Oil & Land Co. University 1-A	270	2473

DRILLING REPORT

COKE COUNTY—Lipan Oil Co.'s E. C. Rawlings 1, dr 165 ft.

CONCHO COUNTY—R. C. Dutton et al's W. O. Schultz 1, dr 260 ft.

CRANE COUNTY—Cordona Oil & Potash Co.'s Cowden 1, sd 3571 ft. J. S. Cosden et al's Connell 1, spd and sd. Church-Fields et al's University 1, top salt 1145 ft, dr 1175 ft. Independent O. & G. Co.'s Len Taylor 1, Sapp sur, elevation 2476 ft, top salt 450 ft, sd with 1200 ft 32 gravity oil in hole 2038 ft. Marland Oil Co.'s Cowden 1, dr 800 ft. Penn-Texas Dev. Co.'s Cowden 1, trace gas 2775 ft, dr 2905 ft. Texas Development Co.'s Cowden 1, sd 3710 ft. F. P. Zoch & Marland Oil Co.'s S. Keith 1, dr 410 ft.

CROCKETT COUNTY—J. S. Cosden et al's Noelke 1, elevation 2332 ft, show gas 1550-60 ft, dr 1895 ft. Carl Cromwell et al's L. P. Powell 1, elevation 2799 ft, top salt 1135 ft, top sandy lime pay 2644 ft, sd with hfo for shot 2665 ft; L. P. Powell 2, dk. Crockett Drilling Synd.'s Shannon 2, dr 2030 ft; Shannon 3, lcn. Cumberland O. & G. Co. et al's Couch 1, spd and sd. Humphreys Corp.'s University 1, dr 2415 ft. Humble O. & R. Co.'s J. P. Sorg 1, elevation 2757 ft, top salt 1130 ft, top lime 2594 ft, sd with 650 ft oih 2651-2660 ft. Magnolia Pet. Co.'s Shannon 1, elevation 2640 ft, top salt 993 ft, dr 1620 ft. Marland Oil Co.'s J. S. Todd 1, rig. Republic & Marland's J. S. Todd 1, elevation 2515 ft, top salt 820 ft, dr 2470 ft. Wm. Schaffer et al's University 1, sd 1365 ft. The Texas Co.'s (was J. C. Cooke et al) J. S. Todd 1, elevation 2672 ft, top salt 1038 ft, shut in gas and oil td 1705 ft.

CULBERSON COUNTY — Deep Rock Oil Co.'s TP Fee 1, lcn. M. A. Grisham et al's Grisham 1, dr 3410 ft. Pure Oil Co.'s Mrs. G. H. Quaid 1, co junk 1900 ft.

JEFF DAVIS COUNTY—Herbert Oil Co.'s T. M. Wingo 1, sec 20, blk G-25, fsh 2065 ft. Humble O. & R. Co.'s W. W. McCutcheon 1, dk.

ECTOR COUNTY—J. C. Cooke et al's Henderson 1, lcn, sec 3, blk 43, tsp 3-S.

GARZA COUNTY—Deep Rock Oil Co.'s S. M. Swenson 1, dr 1600 ft. Emerald Oil Co.'s Connell 1, trace oil 3095 ft, dr 3135 ft. Mid-West Exploration Co.'s N. N. Rogers 1, dk.

GLASSCOCK COUNTY—Case & Hoover's

W. H. Sparkman 1, fsh tools 2020 ft. Mascho & Marland Oil Co.'s Nellie Calder 1, sd 256 ft. Choate-Henshaw & Marland's Neal 1, sd 2534 ft.

TOM GREEN COUNTY—M. B. Bryant & Marland Oil Co.'s Llano Fee 1, co 435 ft. Church-Fields et al's Williams 1, dr 2045 ft. Penn-Windsor et al's Harley Turner 1, sd 1910 ft. Roxana Pet. Corp.'s L. T. Clark 1, dr 1615 ft.

HOWARD COUNTY—Deep Rock Oil Co.'s Scott-Hyman 1, fsh bit 3445 ft. Hyer et al's Clay 1, sd 1565 ft. Choate-Henshaw & Marland Oil Co.'s O'Daniel 1, pumping water, td 3103 ft. Owen-Sloan Oil Corp.'s Chalk 1, dr 875 ft. Transcontinental Oil Co.'s Ora Roberts 1, dr 625 ft. H. G. Gwinnupp et al's Talley 1, lcn.

IRION COUNTY—Oklavania Oil Co.'s Sawyer Cattle Co. 1, dr 1500 ft. Orient Oil Co.'s J. D. Sugg 2, spd and sd. P. H. Williams et al's Ashe Bros. 1, spd.

KENT COUNTY—The Texas Co.'s Barron 1, dr lime 1990 ft.

KING COUNTY—The California Co.'s R. B. Masterson 1, dr 3290 ft. J. A. Mascho-Winters et al's Frank Patten 1, lcn.

LOVING COUNTY—Lockhart & Co.'s W. D. Johnson 1, dr 3245 ft.

LYNN COUNTY—Hart Oil Corp.'s C. O. Edwards 1, fsh 200 ft.

MITCHELL COUNTY—Atlantic Oil Prod. Co.'s Adams 3, dr 2820 ft; Adams 4, dr 2350 ft. The California Co.'s C. M. Adams 2-B, rig; Paul Elder 5, dr 2550 ft; Morrison 15, test pay 2980 ft; H. C. Miller 5-A, reset cas 2707 ft; Womack 3, testing water 2850 ft; Womack 4, rig. Eastland Oil Co. & Gulf's J. J. Handley 1, dr 1110 ft; Adams 1, dr 2780 ft. Mid-Kansas O. & G. Co.'s Ellwood 1, dr 1830 ft. Marland Oil Co.'s Shumaker 1, trace oil 1805-24 and 1850-65 ft, dr 2180 ft. Morrison-Thompson's Scott 1, sd 1440 ft. Magnolia Pet. Co.'s A. P. Watson 1, rig; L. Coleman 1, sr for deep test, td 3205 ft; F. Adams 1, dr 2435 ft; C. M. Adams 3, dr 745 ft; TP Fee 1, dr 115 ft.

PECOS COUNTY—Adams Oil Co.'s A. A. Gray 1, co 1127 ft. Dixie Oil Co.'s Mrs. Hersheusen 1, dr 2630 ft. Transcontinental Oil Co.'s Perry 1, set cas 2100 ft.

PRESIDO COUNTY — Hadlock - Miller (was Claude Byler) et al's Tootle 1, sec 123, D&P Ry sur, blk 3, showing high gravity oil 2175 ft.

REAGAN COUNTY — Big Lake Oil Co.'s University 20-A, erecting pump, td 2455 ft; University 25-A, co 2480 ft; University 37-A, sd 2428 ft; University 51, fsh 2485 ft; University 52, dr in pay 2960 ft; University 53, plugging back from 3074 ft with hfo; University 56, dr 1710 ft; University 57, fsh cas 2655 ft; University 58, dr 2575 ft; University 59, dr 2740 ft; University 60, dr 2500 ft; University 61, dr 2480 ft; University 62, dr 2600 ft; University 63 and 64, rigs; University 65, dr 240 ft; University 66, dr 175 ft; University 67, rig. H. D. Camp et al's University 1, sd 670 ft. Milham Corp.'s University 1, dr hfw 3355 ft. Marland Oil Co.'s J. T. Cole 1, lcn. Mascho & Marland Oil Co.'s Sawyer Cattle Co. 1, lcn. Marland & Zoch's J. A. Talley 1, lcn. Simon et al's R. A. Walters 1, rig. Peer Oil Corp.'s Sawyer Cattle Co. 1, dr 2140 ft. L. V. Tannehill et al's University 1, sd 1160 ft. The Texas Co.'s J. D. Sugg 1, rig. Texon Oil & Land Co.'s University 1-B, dr 525 ft; University 38, rig; University 39 and 40, dks; University 41 to 45, inclusive, lcns.

REEVES COUNTY—Owen-Sloan and Deep Rock Oil Co.'s M. W. Tatum 1, dr 3505 ft, contract completed. Humble O. & R. Co.'s TP Fee 1, rig. World Oil Co.'s TP Fee 1, dr 2235 ft. Schooler-Slack et al's TP Fee 1, ur cas 320 ft.

SCURRY COUNTY — E. E. Fogelson's Bryce 1, making 1 million ft non-inflammable gas 1105 ft, dr 1320 ft. Lockhart & Co.'s S. H. Newman 1, trying to bradenhead gas with 8¼-inch cas, td 1476 ft. Northwest Co.'s H. P. Welborn 1-A, rig.

STONEWALL COUNTY — Arkansas Fuel Oil Co.'s Craft 1, showing gas, sd 3207 ft in sandy shale. Elder Nance et al's Ward 1, sd 2130 ft; Thomas 1, sd 1520 ft. Swenson Oil Corp.'s Ward 1, dr hfw 3180 ft.

STERLING COUNTY — Co-Operative Dev. Co.'s E. W. Douhitt 1-A, sd 1655 ft. Chicago-Texas O. & G. Co.'s Durham 1, dr 2865 ft. Chas. Harty et al's Reynolds-Harty 1, dr 2375 ft. Deep Rock Oil Co.'s L. T. Clark 1, sd for cas 1290 ft. G. M. Richardson et al's J. S. Johnson 1, lcn. H. D. Rummel et al's L. T. Clark 2, dr 725 ft. Wrightsman et al's Collins, sd 1790 ft.

SUTTON COUNTY — Chesapeak Oil Co.'s Clarkson-Allison 1, fsh 610 ft.

UPTON COUNTY — Big Mesa Oil Co.'s University 1, sd 3095 ft. Dixie Oil Co.'s Burleson 1, elevation 2629 ft, top salt 575 ft, top lime 2085 ft, sd with 1250 ft oih from pay at 2188-2219 ft. Choate-Henshaw & Marland Oil Co.'s Noelke 1, spd and sd. W. W. Donnelly & E. L. Hults' H. M. Halff 1, elevation 2786 ft, dr 645 ft. J. A. Germany et al's H. M. Halff 1, elevation 2652 ft, top salt 1414 ft, set 8¼-inch cas 2240 ft. Independent O. & G. Co.'s Burleson 1, elevation 2616 ft, top salt 575 ft, top lime 2085 ft, top pay 2168 ft, fsh parted cas with oil in hole after shot 100 quarts in pay 2168-2210 ft, td 2231 ft. Kirby Pet. Co.'s Union Land Co. 1, elevation 2529 ft, top salt 500 ft, top lime 2022 ft, dr 3200 ft. Marland Oil Co.'s Sanger Bros. 1, top salt 575 ft, dr 1100 ft. Plateau Oil Co. et al's Union 1, elevation 2533 ft, top salt 555 ft, top lime 2065 ft, pumping 10 bbls oil and 10 bbls water after shot 2168-2234 ft. Republic & Marland's Baker 1, pumping 60 bbls oil and 30 bbls water, td 2232 ft. The Texas Co.'s Union 1, top salt 710 ft, ur 10 cas 1030 ft. F. P. Zoch & Marland Oil Co.'s Union 1, elevation 2709 ft, top salt 800 ft, top lime 2270 ft, dr 2415 ft with hfw at 2360-65 ft; E. P. Ruhman 1, set 12½-inch cas 685 ft. Tidal Oil Co.'s Union 1, lcn.

WARD COUNTY — Chesapeak Oil Co.'s Edgar J. Marston 1, dr 230 ft. Gulf Prod. Co.'s Hutchings et al 1, sd repairs in lime 3557 ft.

WINKLER COUNTY—R. A. Westbrook & Co.'s T. G. Hendrick 1, rig.

Texas Panhandle Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Carson County—		
American Ref Co. Burnett 5-A	250	3038
Hutchinson County—		
Canadian River Oil Co. Kingsland 1	1000	2938
McKinney-Bayer Oil Corp. Weatherly 1	30	3052
McIlroy Oil Co. Smith 2	1000	2885

East Texas Wildcats

COMPLETIONS

Falls County—		
Heflin & Schnoufer et al Kelly 1, J. B. Harvey sur	*	3003
Hunt County—		
Rycade Oil Corp. W. M. Holden 1, McAdams sur	*	3200

DRILLING REPORT

CHEROKEE COUNTY — Cherokee Dev. Co.'s Mrs. P. O. Clapp 3, R. R. Jowell sur, spd and sd. M. A. Davey et al's Earl Ragsdale 1, Nathan Johnson sur, sd 1250 ft. Phelps et al's B. C. Lewis 1, near Reese, dk.

ELLIS COUNTY — Jenkins & Simms Oil Co.'s L. B. Griffith 1, rig. City of Ennis' Townsite 1, water well, flowing fresh water 3502 ft.

HENDERSON COUNTY — O. N. Billings et al's Dansby 1, J. J. Martinez sur, sd 4400 ft. Evans et al's Martin 1, Simon Boon sur, sd 2960 ft. Heine et al's Sterrett 1, I. Marshall sur, sd 1168 ft.

HILL COUNTY—Eagle Drilling Co.'s J. T. Jones 1, 1 mile NW of Mt. Calm, spudding.

HUNT COUNTY—Gulf Prod. Co.'s W. T. Hicks 1, John Bordine sur, deep test, dr 3765 ft.

KAUFMAN COUNTY—B. J. Harper et al's Williamson J. E. Crane, sd 2070 ft.

LIMESTONE COUNTY—DeArmond et al's Schweisenger 1, lcn. Eisenmayer et al's Hargroves 1, B. C. Abbott sur, dk. Hunt et al's Cleaver 1, J. O. Moore sur, sd 610 ft. Morley & Morley et al's Head 1, J. Young sur, tested salt water 4140 ft. Reiter-Foster Oil Corp. & Lewis-Lucas' DeLong 1, top Austin chalk 2131 ft, dr chalk 2150 ft. Transcontinental Oil Co. et al's R. Echols 1, dr 450 ft. Yoder et al's V. C. Streathers 1, W. G. McKenzie sur, dr 80 ft.

MILAM COUNTY—Simms Oil Co. & Reiter-Foster Oil Corp.'s A. J. McKinney 1, J. K. Taylor sur, Austin chalk 2764-2996 ft; Duda lime 3130-3260 ft; top Georgetown lime 3282 ft; top Edwards lime 3424 ft, dr Edwards lime 3510 ft.

NAVARRO COUNTY — Bob Penn-Windsor et al's J. O. Burke 1, E. R. Van Horn sur, elevation 368 ft, top Austin chalk 2409 ft, dr chalk 2610 ft.

Coastal Wildcats

COMPLETIONS

Orange County—		
Republic Prod. Co.'s French 1	*	3712
Wharton County—		
Atlantic Oil Prod. Co.'s Taylor 1..1200		3285
Taylor 2 2000		3004
Murchinson & Fain's Floyd 1	*	1022

DRILLING REPORT

BRAZORIA COUNTY—Roxana Pet. Co.'s R. R. Kropp 1, 150 ft to N and 1150 ft to E line on R. R. Kropp 100 acres in J. M. C. Neel sur, set screen 550 ft; Clemens 1, S 78 degrees E and 12,903 ft from NW cor John McNeal League, dr 3600 ft gumbo; Allen 2, 1741 ft E of No. 1, Sterling McNeel tract, dr 2028 ft gumbo. Rycade Oil Corp.'s Nash 6, 500 ft and 45 degrees SW of Nash 5, Lot 2 of W. R. Nash 200 acres, 500 ft S of N line, rigging; Nash 7, 1600 ft E of W line and 200 ft S of N line of W. R. Nash 200 acres, moving in rig.

CHAMBERS COUNTY — W. C. Moore et al's Blanke 2, on Blanke tract, H&TC sec 39, 1500 ft W of Blanke 1, sd 1000 ft.

COLORADO COUNTY — R. C. Timms et al's Drumgould 1, H. A. Cutler tract near Eagle Lake, no report.

FORT BEND COUNTY — Rycade Oil Corp.'s Wisdom 4, 200 ft S of No. 2, off Nash dome, dr 2358 ft hard sand; Flessner 2, 325 ft N of Nash 5, and 150 ft N and 1300 ft E of SW cor of D. Flessner 200 acres on edge of Nash dome, dr 1806 ft sandy shale; J. Meier 4, on Julius Meier 207.7 acres, off Nash dome, dr 2140 ft shale and gumbo. P. A. Neilan's Frederick 2, 300 ft N and E from these lines in sur 19, S. George lease, sd. Gulf Prod. Co.'s Davis 8, 100 ft to N and W lines on A. Watson tract, dr 3120 ft.

GOLIAD COUNTY—Houston Oil Co.'s Pettus 1, 10 miles W of Goliad, dr 2276 ft gumbo; Parks 1, 8 miles E of Goliad, wt on cement to set 553 ft.

HARDIN COUNTY—Vacuum Oil Co.'s Teel 3, off Saratoga dome, rigging. Rio Bravo Oil Co.'s Fountain 5, 850 ft N and 900 ft E of SW cor of J. O. Fountain 100 acres off Saratoga dome, dr 2270 ft. Texas Little Farms Co.'s Hawley 1, Joel E. Hawley League, no report.

HARRIS COUNTY—The Texas Company's Warren 6, 1300 ft W and 800 ft S of E line, E. Ehrenberg sur, near Hockley, dr 2700 ft shale; Warren 7, 700 ft NW of No. 3, dr 1025 ft. Drain Oil Co.'s Harrell 1, 1¼ miles SW of Sid Westheimer 1, near Cross Timbers, dr 1300 ft. Rio Bravo Oil Co.'s Settegast 2, 650 ft W and 500 ft S of NE cor Settegast 100 acres, r 3895 ft, td 4664 ft. Pierce Fee 2, 300 ft N and 75 ft E of No. 1, lcn.

JEFFERSON COUNTY—Houston Oil Co.'s Sun Davis 4, T&NO sur, 400 ft N of No. 3, near Big Hill, dr 3448 ft lime rock; Sun Dyson 1, near Big Hill, dr 2953 ft hard sand. Gulf Prod. Co.'s Burrell 1, 1000 ft E of Thomas 5, near Fannette, dr 1420 ft; Yount-Lee Oil Co.'s Glayds 2, 75 ft S and 100 ft E of NW cor of blk 12, J. A. Veatch sur, set 6⅝-inch cas at 2100 ft.

MATAGORDA COUNTY—Sheppard Mound Oil Co.'s Hawkins 2, on Hawkins ranch, Sheppard Mound, fsh at 2980 ft.

ORANGE COUNTY—Republic Prod. Co.'s French 1, 1628 ft W and 1058 ft to S line on M. Palmer tract, abn 3712 ft.

REFUGIO COUNTY — Houston Oil Co.'s

forestall BLOW-OUTS by installing a HOSMER

When drilling a new well, there is no way of knowing what the gas pressure will be until too late, after tremendous damage is incurred and possibly the well lost. It costs so little to eliminate this possibility of loss to life and property by installing a Hosmer.

The Hosmer Blow-Out Preventer is heavily constructed to withstand enormous pressures. It provides a positive means of controlling gas pressure by closing the opening between the outer casing and drill pipe and allowing the gas which ordinarily collects in this space to be safely discharged through openings either in the body of the preventer or below it.

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O'Connor 1, Tom O'Connor ranch, Hearn sur, near Mission Bay, dr 2391 ft sand.

VICTORIA COUNTY—Houston Oil Co.'s O'Connor 1, Mrs. M. V. O'Connor ranch, dr 2617 ft sand, no show.

WASHINGTON COUNTY—S. H. Spangler et al's Regene 1, 6 miles NW of Burton, Sandtown district on Regeine farm, dr 1200 ft.

WHARTON COUNTY — Jas. W. Rich-Humphrey Oil Corp.'s Dennis 2, 5 miles NW of Wharton in blk 9, R. Kuykendall League, 30 ft S of No. 1, rigging; Brown 1, 50 ft each way from SW cor of W. Brown 20 acres, on GH&SA of James Murray sur, near Mackey, dr 210 ft. Vacuum Oil Co.'s Hooper 1, 50 ft from each line in NE cor of L. M. Hooper 100-acre tract, rigging. Atlantic Oil Prod. Co.'s Taylor 1, 300 ft NW of Taylor 3, producer and 50 ft from SW and SE lines of Atlantic 20 acres, completed 1200 bbls 3285 ft; Taylor 2, 200 ft W of No. 1, completed 2000 bbls 3004 ft; Taylor 3, 50 ft from both lines of SW cor of 20-acre lease, r 2970 ft in oil sand; Taylor 4, 200 ft W of No. 2, dk. Humble Oil & Ref. Co.'s Hawes 1, 50 ft from both lines of NE corner of E. Hawes 74-acre tract, dr 1880 ft sand rock. The Texas Co.'s Taylor 4, 200 ft NW of No. 3 on S. T. Taylor 400 acres, dr 3250 ft in oil sand, to set screen; Taylor 5, 200 ft SW of No. 4 and offset to Sinclair No. 1, dr 1669 ft sand and boulders; Taylor 6, 100 ft NE No. 4 and 100 ft SE of Atlantic's No. 1, dr 2578 ft in gumbo; Taylor 7, 200 ft SW of No. 5, dr 600 ft; Floyd 1, NW of Taylor 3 on M. S. Floyd 56 acres, rigging. Sinclair Oil & Gas Co.'s Taylor 1, 50 ft out of SE cor of 5-acre tract and offset to Atlantic's No. 1, set 10-inch cas 2909 ft; Taylor 2, 200 ft S of Sinclair's No. 1, dr 727 ft in gumbo; Taylor 3, 200 ft S of Sun Co.'s No. 1, rigging; Taylor 4, 200 ft S of Sinclair's No. 1, rigging. Sun Co.'s Taylor 1, 50 ft from each line out of SE cor of 5-acre tract, to test 3000-foot sand; Nos. 3, 4 and 5, lcn; Taylor 2, 50 ft out of NE cor of NW 5-acre tract and offset to Atlantic's No. 3, dr 2408 ft in gumbo and lime. Murchinson & Fain's No. 1, 1450 ft from W and 150 ft from S line of N 25 acres of Marland's Floyd 50-acre lease, abn 1022 ft. Oxford Oil Co.'s Autrey-Floyd No. 1, NW of Humble-Gulf 124 acres, 50 ft S and W of NE cor of Floyd 11 acres, S. F. Austin League, setting blow-out preventer 2920 ft, gas sand; Rogers 1, 18 varas N and 59 varas W of SE cor of Rogers 80-acre tract, S. F. Austin League, fsh 1778 ft. Nelms et al's Bay 1, 5900 varas NE along NW line and 1000 varas at right angles with said line, dr 775 ft sand rock; Morris 1, 2100 varas NE along NW line of W cor and 2100 varas at right angles with said line, sd. Gulf Prod. Co.'s Borden 1, on A. P. Borden 600-acre tract in SE cor, near Mackey, dr 2409 ft; Chase 1, 500 ft to S and 50 ft to W line of E. M. Chase 60-acre tract off Boling dome, Stephen F. Austin League, dr 2432 ft in gumbo. Houston Gulf Gas Co.'s Woodfin 1, 5400 varas NE along NW line and 500 varas S at right angles of said line in John Huff sur, sd 743 ft.

CALCASIEU PARISH—Vacuum Oil Co.'s Farquhar 3, 175 ft W and 100 ft N of SE cor of SW¼ sec 9, rigging; Freiberg & Wolfe 1, 780 ft S and 685 ft E of NE cor of SW¼ of sec 9, milling out 4120 ft, td 4669 ft; Freiberg & Wolfe 2, 200 ft each way out of NE cor, dr 2359 ft in shale; Bordages 2, 500 ft W and 200 ft N of SE cor of N½ of NW¼ sec 9, dr 3295 ft in gumbo and lime; Miller 5, 300 ft N of SW cor of NW¼ sec 10, set 3-inch screen 4433 ft, Miller 6, 475 ft N and 11 ft W of center of sec 2, cored oil 4007 ft, shale; Miller 7, 500 ft W of No. 3, set 12½-inch cas 1290 ft; Miller 8, 400 ft N of No. 4, dr 2094 ft, lime and shale; Miller 9, 400 ft N and 100 ft E of No. 4, r to set 12½-inch cas 1297 ft. Standard Oil Co. of La.'s Industrial Lumber Co. 5, 1000 ft S of No. 4, dr 1600 ft. Earl Pool et al's Castle 1, NE¼ of sec 14-9-3, no report.

CAMERON PARISH — Yount-Lee's Stateland 1, Hackberry dome, 100 ft N and 1197 ft E of SW cor of SEc 16-12s-10w, no report.

ST. LANDRY'S PARISH — Bristol Oil & Mineral Co.'s Desire Dreaux 1, 1147 ft W and 1352 ft N of SE cor sec 15-8s-3e, no report.

ST MARTIN'S PARISH — Rycade Oil Corp.'s Atchafalaya 1, 18-9s-7e, lcn.

Louisiana Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Caddo Parish—		
Haynes Brothers Louisiana, L. S. & P. 1, 8-19-16	*	3712
Catahoula Parish—		
Ferguson-Kimbrough Oil Co. Nichols 1, 31-9-6e	*	2219
The Texas Co. Hyman 1, 24-8-7e	*	3477

DRILLIN GREPORT

BOSSIER PARISH—Arkansas Fuel Co.'s Murray 1, 14-23-14, sd 1130 ft. Benton Synd's Bulkley 1, 9-20-13, dr 1085 ft. Collins & Woodley's Kilburn 1, 18-19-13, set 12½-inch 102 ft. Simms Oil Co.'s Sandidge 1, 9-18-11, re-setting 4½-inch on packer 1556 ft. Square Deal Oil Co.'s Hale 1, 17-18-11, sw 1227 ft.

CADDO PARISH—Dixie Oil Co.'s Jolley 1, 27-22-15, dr 3810 ft; Noel B-2, 13-21-15, setting 6 inch, 3557 ft; Robertshaw 71, 14-21-15, set 15½-inch, 263 ft. Fortuna Oil Co.'s Levee Board 2, 8-20-15, swaging 4½-inch, 2985 ft; Bradford 1, 24-21-15, dr 1200 ft. Gulf Ref. Co.'s Lane 17, 13-21-15, r/u to deepen, 2856 ft; Muslow 1, 31-21-15, dr 80 ft; Tyson 1, 14-21-15, rig. Ohio Oil Co.'s Ardis 1, 1-21-15, r 3885 ft; E. K. Smith 18, 12-21-15, dr. 3735 ft; E. K. Smith 19, 12-21-15, dk. B. C. Richardson's Youree-Randolph 3, 13-20-15, rig; Youree-Randolph 4, 13-20-15, rig. The Texas Co.'s Caddo Mineral Lands 42, 23-21-15, set 12½-inch, 300 ft; Levee Board 59, 35-21-16, dr 1800 ft.

CALDWELL PARISH—Alexander et al's Cruse 1, 6-11-4e, dk.

CLAIBORNE PARISH — Triangle Drlg. Co.'s Keen 1, 7-19-5, coring 3440 ft; Meadows 1, 7-22-5, dr 1900 ft.

DE SOTO PARISH—Dixie Oil Co.'s Jenkins 1, 9-12-11, set 8¼-inch, 3293 ft. Fortuna Oil Co.'s Band 1, 32-12-15, dr 2135 ft. Gulf Ref Co.'s Williams C-18, 31-13-11, dr 6040 ft. J. C. Walton's Harp 1, 31-12-11, dr 600 ft.

GRANT PARISH — Dowling & McCurry's Holmes 1, 20-9-1e, sd 1525 ft.

LA SALLE PARISH—P. J. White's Louisiana-Central 1, 27-10-2e, plugged back to 1581 ft; tested very small show of oil; sd.

LINCOLN PARISH—Buckley & Palmer's Davis 1, 12-20-3w, sd 1500 ft. The Texas Co.'s Tremont 1, 27-18-1w, dk timbers.

MOREHOUSE PARISH—Boisseau et al's Sullivan 1, 11-21-7e, to set 6-inch 2487 ft.

NATCHITOCHES PARISH—Amerada Pet. Corp.'s Wafer 1, 3-11-8, dr 3165 ft.

OUACHITA PARISH—Culver et al's Cordell 1, 23-15-3e, sd 1360 ft. Diskson & Frue's Goodwin 1, 24-18-2e, sd 3036 ft. Southern Carbon Co.'s Jones 1, 6-16-5e, sd 3090 ft.

RAPIDES PARISH—Hincy & Mack's Barrow 1, 29-5-2e, sd 1250 ft. Pacholik et al's Voda 1, 12-4-1e, lcn.

SABINE PARISH—Emlet et al's Bowman-Hicks 6, 8-7-12, sd 3710 ft.

UNION PARISH—Arkansas Fuel Oil Co.'s Reeves 1, 14-20-1e, sd 1730 ft. Empire Gas & Fuel Co.'s Dubach Lumber 1, 17-20-1e, dr 2275 ft.

WEBSTER PARISH—Doern et al's Bolinger 1, 9-22-11, rig. Fortuna Oil Co.'s Bible 1, 8-20-9, r 4265 ft to set 6-inch 4281 ft; showing gas. Humble Oil & Ref. Co.'s Cox 1, 22-21-10, fsh 4214 ft. Ohio Oil Co.'s Cox 1, 23-21-10, dr 4365 ft; Hodges 1, 23-21-10, testing 4415 ft.

WINN PARISH—Cedar Creek Pet. Co.'s Sullivan 1, 6-10-2w, sd 700 ft. J. R. Hale's Eagle 1, 6-10-2w, dr 960 ft.

Arkansas Wildcats

COMPLETIONS

Nevada County—		
Ouachita Valley Oil Co. Phillips 1, 30-14-20	*	2725
Miller County—		
Lenze et al Dale 1, 25-15-26	*	1208

DRILLING REPORT

ASHLEY COUNTY—Pine Prairie Oil Co.'s Pine Prairie 2, 1-17-6, dk. Rhodes et al's Bledsoe 1, 20-15-7, testing sw 1650 ft.

CALHOUN COUNTY—Magnolia Pet. Co.'s Calion 1, 29-15-14, set 6⅝-inch, 3966 ft. Southern C. O. P. Co.'s Freeman-Smith 1, 19-14-15, set 8⅝-inch, 2327 ft.

CLARK COUNTY—Wheelen Oil Co.'s Brown 1, 35-10-20, dr 1515 ft.

CLEVELAND COUNTY—Dedman et al's Moore 1, 28-9-10, sd 1757 ft.

COLUMBIA COUNTY—H. W. Aarnes' Brown 2, 13-15-20, dr 3030 ft. Phillips et al's Davis 1, 14-18-21, sd 2860 ft. Pluto Oil Co.'s Robinson 2, 23-18-23, set 8-inch, 900 ft.

DALLAS COUNTY—McNiel et al's Owens 1, 29-10-16, dr 2100 ft.

DREW COUNTY—McClintock et al's Ogle 1, 35-13-5, set 6-inch, 1810 ft.

HEMPSTEAD COUNTY—Burton et al's Garland 1, 23-10-25, sd 1510 ft. C. W. Robinsons' Toner 1, 29-12-23, dr 2615 ft.

LA FAYETTE COUNTY—Arkansas Fuel Oil Co.'s Red River Lands 1, 18-19-24, swabbing 2000 bbls sw and 30 bbls oil, wosr; Red River Lands 2, 18-19-24, dr 620 ft. Humble O. & R. Co.'s Bodcau Fee 3, 19-16-23, lcn. Ken-Saw Pet. Co.'s Red River Valley 2, 3-20-24, fsh 2820 ft.

LITTLE RIVER COUNTY—Grote et al's Allen 1, 2-13-29, sw 2952 ft.

MILLER COUNTY—Buzzard Bluff Oil Co.'s Gillespie 1, 22-14-26, dr 2005 ft. Copeland et al's Wiseman 1, 36-15-27, sd 2650 ft. Humble O. & R. Co.'s Crank 1, 5-17-25, rig. Lenze et al's Dale 1, 25-15-26, junked 1208 ft; skidding over.

NEVADA COUNTY—Humble O. & R. Co.'s Calloway 1, 10-15-22, rig. Magnolia Pet. Co.'s Johnson 1, 3-15-21, dr 4475 ft.

OUACHITA COUNTY—Buffalo Oil Co.'s Morgan 4, 22-15-19, set 6-inch, 1436 ft. J. E. Crosbie's Wallace 1, 27-15-19, coring 1502 ft. Equity O. & D. Co.'s Morgan 1, 27-15-19, dr 1654 ft. Gossett et al's Cosden 1, 21-15-19, set 6⅝-inch, 1455 ft; Davis 1, 26-15-19, sd 1672 ft; Thompson 1, 22-15-19, sw 1487 ft; Skidded over, started new hole, and set 10-inch 42 ft. Harrell et al's Moline Timber 1, 32-11-17, rig. Louisiana Oil Ref. Corp.'s Green 1, 22-15-19, rig. Van Diver et al's Yarbrough 1, 22-14-17, sd 1600 ft. J. D. Reynolds et al's Davis 1, 22-15-19, set 10-inch, 42 ft.

UNION COUNTY—Bondurant et al's Garner 1, 8-18-12, dr 1625 ft. El Dorado Union Oil Co.'s Ennis 1, 23-17-16, rig. Howell & Knowles' Springer 1, 36-17-16, sd 2527 ft. E. M. Jones' Andres 1, 16-17-16, rig. Marine Oil Co.'s Slaughter 1, 9-17-16, dr 825 ft. McGaha et al's Haney 1, 11-17-16, sd 2138 ft. Miles Trust's Miller 1, 35-17-16, sw 2560 ft. J. D. Reynolds' Dumas 2, 15-17-16, swabbing 2149 ft; Dumas 3, 15-17-16, dk tmbrs. Rovenger Oil Corp.'s Dumas 3, 9-17-16, dk; Dumas 4, 9-17-16, dr 405 ft; Goodwin 1, 16-17-16, dr 1000 ft; Goodwin 2, 16-17-16, dk; Harrell 1, 15-17-16, dr 1200 ft. Simms Oil Co.'s Dumas A-2, 9-17-16, dk. Wingfield et al's Cruse 1, 27-17-16, dk tmbrs; Slaughter 1, 9-17-16, dr 2050 ft.

San Antonio Wildcats

BASTROP COUNTY—Johnson Bros. No. 1 Trigg, dr.

CALDWELL COUNTY—Van Kueren Oil Co.'s Ridout 1, dr. United North & South Oil Co.'s Kelly 1, dr; Tiller dr. Detex Oil Co.'s Bridges 1, abandoned. E. L. Smith Oil Co.'s Burdette 1, spd. Foster-Reiter Brown 1, dr. C. E. Ash et al's Jolley 1, dr below 1500 ft.

DUVAL COUNTY—Associated Oil Co.'s Sutherland 1, dr. Humbel Oil Refining Co.'s Hagist 1, dr; Walsh 5, dr 2700 ft. Killam-Seacord's Benavides 1, dr. Grayburg Oil Co.'s Halff 1, dr below 400 ft. Seagraves & Moody's Mesquite 1, dr; Walsh 1, dr; Benavides 1, blk 6, sur 10, spd. J. K. Hughes Development Co.'s Peters 1, dr.

DEWITT COUNTY—Yoro Development Co.'s Holzaphel 1, set casing below 2700 ft.

GUADALUPE COUNTY—United North & South Oil Co.'s McKean 23, prod 6000 bbls at 2150 ft; Allen 21, prod 400 bbls at 2150 ft; Allen 22, prod 400 bbls at 2150 ft; Allen 23, prod 400 bbls at 2150 ft. Dunning & Armstrong's Dale 1, dr. Howell et al's Louis Willmann dr. Smith-Payne-Bond's Duran 1, dr. Humble Oil & Refining Co.'s Wohlfahrt 1, rig.

JIM HOGG COUNTY—K. & S. Corp.'s Holbein 1, prod 60,000,000 cu ft dry gas. Rydal-Rycade Oil Co.'s Allen 1, dr; Theodoro Vella 2, dr; E. J. Braswell 1, set cas. Beaucamp et al's Vela 1, dr. Magnolia Pet. Co.'s M. S. Bank 3, dr. Simms Oil Co.'s Palacious 1, set cas 1400 ft; Thompson 1, spd. Andres Pet. Co.'s M. S. Bank 1, dr. Bailey et al's Palacious 1, dr. O. W. Killam's Martinez 34, spd; Holbein 1, bailing at 2089 ft.

MEDINA COUNTY — Medina Oil Co.'s Taylor 1, cmt cas 350 ft to shut off water. Golden West Oil Co.'s Schmidt 3, prd 250 bbls; Schmidt 4, set cas; Schmidt 5, dk; Buchanan & Tyrell's Nixon 1, dr hole. Witherspoon Oil Co.'s Nixon 1, dr 400 ft. Grayburg Oil Co.'s Ward 1, dk. Plateau Oil Co.'s Johnson 1, lcn. Ina Oil Co.'s Fohrs 1, lcn. Eastham & Tarver Viola Wilson 2, prd 125 bbls.

STARR COUNTY—Rutledge et al's Kelsey 2, dr.

WILSON COUNTY—W. L. Brashears' Standish 1, dr below 1733 ft.

ZAPATA COUNTY—Texas Co.'s Jennings 2, dr below 3400 ft.

Oklahoma Wildcats

OKLAHOMA WILDCATS

ATOKA COUNTY—Wapanucka Dev. Co.'s Underwood 1, C W L SE SE 28-15-10, sd 1343 ft. Hansen et al's Dabney 1, C SE NE 17-4-11, sd 3722 ft.

BECKHAM COUNTY—W. R. Duke, McGee 1, NWc SW SE 25-8-22, set 8¼-inch at 950 ft.

BLAINE COUNTY—Okama Oil Co.'s Eklemeir 1, SWc 21-15-10, sd 2610 ft.

CADDO COUNTY—Continental Diamond's Funk 1, SE SE 1-5-9.

CANADIAN COUNTY—Thos. Revelle's Dawson 1, NEc SE NW 34-13-9, ur 5-inch, 3680 ft. O. D. Jones et al's Sanders 1, C NE NE NE 29-11-7, sd 2150 ft.

COMANCHE COUNTY—Daisy Bell Oil Co.'s Warehime 1, C SW SW 25-4-9, rig. Mid-Kansas O. & G. Co.'s Hendricks 1, C S L SE 33-3-10, ur 1565 ft. Becker & Reed's Hind 1, NEc NW 30-4-10 lcn. J. R. Abernathy's 1, NEc NW 24-5-11, lcn. Mid-Kansas' Cox 1, NEc SE NE 30-1-13, td 768 ft.

GARFIELD COUNTY—Roxana's Reed 1, SWc NE 34-24-3, rig. Bryan & Emery's Chevelier 1, NWc SW 6-23-4, rig. Bu-Vi-Bar's Johnson 1, SWc 31-28-4, dr 1600 ft. Shaffer & Amerada's Brunken 1, NEc 32-24-4. Sinclair's Fee 1, SWc SW NE 2-20-5, dr 2546 ft. Wilcox O. & G. Co.'s Zalondek 1, C SE SE SE 22-24-6, rigging.

GRANT COUNTY—Dedman, Flannagan & Hennage's Sherrer 1, NEc SW 16-26-3, sd 515 ft. Lamber & Mink's Tabor 1, C SE NE SE 23-26-3, spd and sd. Gypsy Oil Co.'s Meugge 1, SEc NW 33-26-3, dr 1312 ft. Marland Oil Co.'s Webb 1, C NW NE NE 2-27-3, co 4190 ft.

HUGHES COUNTY—Parmenter et al's Stewart 1, C SE SW SW 14-7-9, rig. Brock's Bruner 1, C SW SW NW 28-7-8, swab 65 bbls, 4350-53 ft. Henry Greis & Kerrs' Pearson 1, C SE NE NE 30-5-10, cd 3500 ft.

JEFFERSON COUNTY—Godley Oil Co.'s Woodworth 1, C NE NW 36-5-4 ur 3030 ft. Oasis' Major 1, C SE SW 34-5-6, spd and sd.

KAY COUNTY—Tonkawa Dev. Co.'s McDaniels 1, C SE SE SE 15-25-1, sd 880 ft. Miss. Valley Oil Co.'s Butler 1, C NE NE NE 22-27-2, dr 3917 ft. Galconda's Welge 1, SWc NW 29-28-2, d and a 3874 ft. Souligny Bros.' School land 1, NEc NW 16-26-3, sr 8-inch, td 2593 ft. Davis Drilling Co.'s Street 1, C NE NE NE 31-28-3, fsh, td 3710 ft.

KINGFISHER COUNTY—McKenna & Crawford's 1, NEc SW 27-16-6; Bu-Vi-Bar's 1, SEc NW 11-12-9, lcn.

LINCOLN COUNTY—Douglas Oil Corp.'s Ewing 1, NWc 7-13-3, sd 4320 ft for cas. Ruby et al's Cull E, NEc NW 36-15-4, sd 4721 for cas. Carter Oil Co.'s Meeks 1, Swc 26-16-2, lcn. Flynn, Morgan & Young's Rittenhouse 1, NWc SE 26-16-5, set 20-inch at 313 ft.

LOGAN COUNTY—Blackford O. & G. Co.'s Lair 1, C S L N½ SE 28-16-1, sd 1675 ft. Haley & Pioneers' Quair 1, SWc SE 33-18-3, sd 1557 ft. Franklin Oil Assn.'s Moore 1, SWc SE 28-18-4, td 3585 ft. Bryan & Emery's 1, NWc SE 33-19-4, lcn.

LOVE COUNTY—Smyer & Stein's Gray 1, C SE SE 19-9-1, rig.

MAJOR COUNTY—Frantz & Slick's Gray 1, C NW 36-21-11, sd 1000 ft. Texas Prod. Oil Co.'s Cheyenne Basin 1, SWc 6-22-14, sd 200 ft.

MARSHALL COUNTY — Ramsey Bros.'

Griffin 1, SW SW 10-5-5 dr 1275 ft. United "8" 's Marshall 1, SW SW 30-5-6, sd 585 ft.

NOBLE COUNTY—Miller's 101 Ranch, NEc 1-24-1, ru.

POTTAWATOMIE COUNTY—Davis Detrick's McCathy 1, SEc NW 10-6-2, td 3860 ft. McCullough's Madgett 1, NWc 25-10-4, spd. Cenral National Oil Co.'s Toney 1, C SW SW SW 28-10-4, sd 755 ft. Texas Co.'s Allenbaugh 1, SEc SW 3-11-5, fsh 4632 ft.

PAWNEE COUNTY—Dixie's Roberson 1, NEc SW NW 8-21-6, ru.

SEMINOLE COUNTY—Bryan Bros.' Sam Walker 1, C SE SE SE 4-7-6 swab 40 bbls, 2752-61 ft. Pure Oil Co.'s Jonah 1, C E L NW NW NE 15-9-7, fsh 1478 ft.

STEPHEN COUNTY—Homa Okla Oil Co.'s Waters 1, C SW NE 10-2-9 td 2340 ft. Flowers & Frazier's Turner 1, NEc NE 25-2-9, rig up.

TILLMAN COUNTY—Oasis Oil Co.'s Snelling 1, SEc SE SE 13-1-8, dr 500 ft. Tipton et al's Riverbed 1, C NE NE 1-5-5 dr 2350 ft.

TEXAS COUNTY—Wilcox O. & G. Co.'s Horey 1, SEc 21-4-14, rig; Dei 1, SWc SE 28-3-13, dr 2015 ft. Reiter & Foster's 1, SEc SW 9-13-15, sd laying gas line. Garber & Pulse's 1, SEc, 4-1-12, rig. Valerius O. & G. Co.'s Hughes 1, NWc SW 18-3-12, spd.

Kansas Wildcats

BARBER COUNTY—R. B. Brown's Martin 1, NWc 14-34-11, sd 1500 ft.

BARTON COUNTY—John Herron's Everleigh 1, SEc NE 22-18-3, sd 4550 ft. Huffins et al's Smith 1, C NE SE NE 17-19-11, sd 3900 ft.

BUTLER COUNTY—Eyessen's Varner 1, NEc SW 29-25-4 lcn. Greenland & Kismet's Daley 1, SWc SE 25-24-6, lcn; Potts 1, NEc 29-24-7, lcn. W. M. Neeley O. & G. Co.'s Kiser 1, SW SE SW 12-26-7, sd, rig

CHASE COUNTY—Derby Oil Co.'s Newman 1, NWc SW 24-20-9, rig. Dingee, Pryor & Lockhart et al's Evans 1, NWc NE 1-22-9, dr 2100 ft.

CHAUTAUQUA COUNTY—Blackwell O. & G. Co.'s McCown 1, NWc SE 31-32-10 show 2290 ft.

CLOUD COUNTY—Concordie Oil & Prod. Co.'s Murdock 1, SEc 6-6-4 sd 3030 ft.

COWLEY COUNTY—Pettee & Banks' Withers 1, NEc NW 32-30-5 ur 1600 ft. Phillips Pet. Co.'s Hunt 1, NEc 16-34-5 dr 2290 ft. Branson et al's White 1, SEc SW SW 7-30-6, spd and sd. S. H. E. Pet. Co.'s Day 1, NE NW 24-34-6, sand 21-42-82, 2 mil. ft gas, 15 bbls oil, 25 bbls water.

ELK COUNTY—I. T. I. O. Co.'s Cummings 1, C NW NW 31-30-10, sd 1530 ft. Roy Shapples et al's Howard 1, SW NE 14-30-9, dr 1050 ft.

GRAHAM COUNTY—Gruien & Shilers' Baker 1, NWc SE NW 17-10-24, rig.

LYON COUNTY—Connell et al's Ball 1, SEc SW NW 23-18-10, lcn. Culp et al's 1, SW SE 25-19-10. Troxell et al, Williams 1, NE SW 12-20-10, rig. Sheedy et al's Morris 1, NWc SE 19-21-10. S. W. Pet. Co.'s Vorhees 1, SWc NW 34-21-10 dr 575 ft. Bush's Eskridge 1, NE SE 36-19-11, rig. Connell et al's Lewis 1 SWc 4-20-11, lcn. Gordon et al's Stilwell 1, SEc 24-20-11, lcn. Miss. Valley Oil Co.'s Neusman 1, C NW SE 25-20-11, lcn; Langley 1, C SW SE 4-21-11, lcn. Abel et al's Rednoor 1, SWc 11-18-12, lcn. Abel & Finney's DeLong 1, NWc SW SW 22-18-12, lcn. R. G. Gillespie, Flading 1, SWc NE 9-20-12, lcn. Connell et al's Welch 1, NEc SW 22-20-12, lcn. Swartz's Tiles 1, SEc SW 29-21-12, rig. Gashe & Balliere's Stratton 1, SEc NW 32-20-13, lcn. Phillips Pet. Co.'s Shepard 1, SW NW 29-21-13, lcn.

OSAGE COUNTY—Baker et al's Lease 1, C SE SE 3-15-15, sd 260 ft. Rogers & Bittle's Bertha 1, SEc NW SE 28-17-15, lcn. Mull-Vit Dev. Co.'s Neil 1, NWc NE SW NW 8-17-17, sd 2835 ft.

RENO COUNTY—Frank Hopper's Stevens 1, NWc 7-26-7, fsh 8-inch 2755 ft.

RICE COUNTY—Jasper & Beschka's Walker 1, SWc NE 10-18-6 dr 3460 ft. Stamey's Barnes 1, SEc NE 21-20-6, sd 2726 ft, hfw.

RILEY COUNTY—Pawnee O. & G. Co.'s Marks 1, SWc NE NW 26-10-6, dr 2400 ft.

ROOKS COUNTY—Keys Pet. Co.'s Saidon 1, NWc SW SE 7-2-20, spd and sd. C. Findeiss et al's Minx 1, SWc 25-10-9, sd 3669 ft.

SALINE COUNTY—Thrall et al's Halquest 1, SEc NE NE 15-15-4, sd 1010 ft.

SUMNER COUNTY—Roxana Pet. Corp.'s Miller 1, NE SW 17-32-2, swab 140 bbls 2950-60 ft. Wentz's Schwartz 1, NWc NE NE 27-34-2 cellar.

WABAUNSEE COUNTY—Williams et al's Henderson 1, NEc SW NE 15-13-12 sd 3600 ft. Ramsey Pet Co.'s Kaul 1, SEc NE NE 2-11-11 dr 2005 ft.

WOODSON COUNTY—Alter et al's Hunt 1, NWc SW 13-25-14, sd 700 ft.

PERMITS GRANTED FOR NEW WELLS

Weekly Comparison of New Wells

Following is a condensed table giving a comparison of permits or locations made for new wells in Kansas, Oklahoma, Arkansas, Louisiana, Texas and California:

Number of Wells for Week Ending

	Nov. 6	Nov. 13	Nov. 20	Nov. 27	Dec. 4	Dec. 11	Dec. 18	Dec. 25	Jan. 1	Jan. 8	Jan. 15	Jan. 22	Jan. 29	Feb. 5	Feb. 12	Feb. 19
Kansas	23	21	37	35	29	35	28	32	40	30	23	28	44	24	31	59
Oklahoma	63	86	60	106	86	73	75	95	76	78	60	92	85	71	85	100
Arkansas	..	18	10	16	10	22	11	15	10	18	10	12	13	28	11	28
Louisiana	9	15	6	15	17	15	15	7	12	15	17	20	23	23	37	23
Texas	156	171	174	126	253	203	210	199	167	111	162	153	150	146	176	201
California	16	23	25	23	23	22	42	40	17	25	28	35	35	31	34	26
Total	267	334	312	321	418	370	381	388	322	277	300	340	350	323	374	437

CALIFORNIA

Long Beach Field—George W. Johnson's 4-A, 13-4-13. Keck Synd.'s Modoc 4, 13-4-13. W. M. C. Synd.'s 2, 13-4-13. Marine Corp's 55, 13-4-13. W. A. Playter's Bunny 3, 18-4-12. S. M. & F. Oil Co.'s 1, 18-4-12. W. O. Todd's 2, 18-4-12. The United Oil Co.'s Ketchum 1, 13-4-13. California Pet. Corp.'s Frye 1, 13-4-13. California Pet. Corp.'s Frye 2, 13-4-13. A. J. Delaney's 11, 13-4-13. A. J. Delaney's 16, 13-4-13; 20, 18-4-12; 17, 13-4-13; 21, 13-4-13. George E. Merrill's 1, 13-4-13. Painted Hills Oil Assn.'s 10, 13-4-13.

Midway Field—Honolulu Cons. Oil Co.'s 22, 4-32-24. Balboa Oil Co.'s 41, 24-31-23. Pacific Oil Co.'s 41, 29-31-24. California Pet. Corp.'s Dorothy 5, 34-32-24.

Montebello Field—St. Helens Pet. Co.'s Piuma-Briano 5, 6-2-11. St. Helens Riverside Properties Monterey 12, 2-2-12.

Richfield—Standard Oil Co.'s Kraemer 2, 29-3-9.

Santa Fe Springs Field—California Pet. Corp.'s Wickman 2-B, 5-3-11.

Stanislaus Co. Field—J. G. Tavares' 1, 12-7-8.

KANSAS

Butler County—Arakansas River Gas Company No. 12 Parris, center of the southeast of the southwest of 20-23-4. Empire Gas & Fuel Co., No. 84 Higbert, center of the north line of the south half of the north half of the northwest of 26-25-5. Amerada Petroleum Company No. 5 Kruse, northwest corner of the southeast of the northwest of 27-27-7. Phillips Petroleum Company No. 4 Kruse, southwest corner of the northeast of the northwest of 27-27-7; No. 5 Truesdale, northwest corner of the southwest of the southwest of 27-27-7; No. 4 Truesdale, southwest corner of the northwest of the southwest of 27-27-7; No. 6 Truesdale, southeast corner of the southwest of the southwest of 27-27-7; No. 7 Truesdale, northeast corner of the southwest of the southwest of 27-27-7; No. 8, southeast corner of the northwest of the southwest of 27-27-7.

Chase County—Taylor et al No. 1 Frew, southeast corner of the northeast of the southwest of 36-22-7.

Chautauqua County—Brouk et al No. 1 Garr, northwest corner of the southeast of 5-33-9.

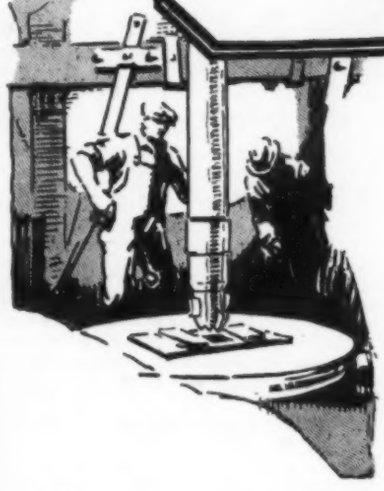
Coffey County—Terrain, Ballaire et al No. 1 Milner, southeast corner of the northeast of 2-20-13. Spencer, Bateman, et al No. 1 Anderson, southwest corner of 23-20-13.

Cowley County—Waite Phillips-Marland-Independent No. 9 H. Thurlow, northeast corner of the southwest of the southeast of 17-33-3.

Elk County—Conley et al No. 1, Thompson, southeast corner of the northwest of 1-30-9. Anglo-Texas et al No. 2 Newbecker, northwest corner of the southwest of the southeast of 19-31-9. Southwest Gas Company No. 1 Ames, southeast corner of 15-31-10. Neeley Oil & Gas Company No. 1 Miller, southwest corner of 21-31-10. Denman et al No. 1 Jules, northwest corner of the northeast of 35-31-10.

Greenwood County—Connell et al No. 1 Huntsinger, southwest corner of the southeast of 1-22-10. Davis, Hazlett et al No. 12 De Malorie, northeast corner of the southwest of the northeast of 12-22-10. Manhattan Oil Company No. 4 De Malorie-Souder, northeast corner of the northwest of the northeast of 12-22-10; No. 5 De Malorie-Souder, southeast corner of the northwest of the northeast of 12-22-10. Sinclair Oil & Gas Company No. 37, Browning, southeast corner of the northeast of the northeast of the southwest of 20-22-10. Texas Company No. 5 Prather, northeast corner of the northwest of the northeast of the southwest of 29-22-10. Titus et al No. 3 Prather, center of the west line of the northwest of 29-22-10; No. 4 Prather, southwest corner of the northwest of the southwest of the northwest of 29-22-10; No. 7 Prather, northwest corner of he southeast of the northwest of the northwest of 29-22-10; No. 12 Prather, center of the north line of the south half of the north half of the northwest of 29-22-10; No. 17 Prather, northeast corner of the southwest

take cores frequently and be sure,



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By the same reasoning, the Phipps Core Bit is well up among the most valuable inventions for the petroleum industry. It virtually brings every foot of the hole to the surface, where it can be examined carefully and leisurely, and all further operations based upon definite and exact knowledge of conditions, requirements and results to be obtained.

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of the northeast of the northwest of 29-22-10; No. 20 Prather, southeast corner of the southwest of the southeast of the northwest of 29-22-10; No. 25 Prather, southeast corner of the northwest of 29-22-10. Empire Gas & Fuel Company No. 6 Hind, northwest corner of the southeast of the southwest of 11-22-11. Selby Oil & Gas Company No. 2 Harris, southeast corner of the northwest of the northwest of 19-22-11. Phillips Petroleum Company No. 5 Hill, southeast corner of the southwest of 33-22-11. Fisher Lauck et al No. 1 Frankhauser, northeast corner of the northwest of the northwest of 4-22-12. Empire Gas & Fuel Company No. 1 Ott, southeast corner of the northwest of 18-22-13. Braden Brothers et al No. 1 Young, southwest corner of the southeast of the southeast of 22-22-13. Manhattan Oil Corp., No. 1 "C" Dales, southeast corner of the northeast of 26-23-8. Knight et al No. 1 Noler, northwest corner of the northeast of 3-23-9; No. 21 Green, southeast corner of the southwest of the northeast of 10-23-9. Empire No. 33 Teter, northeast corner of the southwest of 16-23-9. Mid-Kansas Oil & Gas Company No. 15 Allen, southwest corner of the northeast of 23-23-10. Mid Continent Petroleum Corp., No. 12 Shambaugh, center of the north line of the northwest of 22-23-13; No. 2 "A" Dehlinger, northwest corner of the northeast of the northeast of 28-23-13. Polhamus et al No. 4 Wiggins, center of the west half of the southwest of 26-24-9. Loy et al No. 1 Short, northwest corner of the southwest of the northeast of 15-24-11. Roth & Farout No. 9 Birkett, northeast corner of the southwest of the northwest of 12-25-8. Dick et al No. 1 McCarty, northwest corner of the southwest of 27-5-10. Beacon Oil Company No. 1 Weirshing, northwest corner of the northeast of the southeast of 23-26-9.

Lyons County—Hanland et al No. 1 Evans, southeast corner of the northeast of the northeast of 7-20-13. Gasche & Balliere No. 1 Scott, northwest corner of 32-20-13. McCulloch et al No. 1 Bradfield, northeast corner of the northwest of 25-21-10. Phillips Petroleum Company No. 3 Perdroja, southwest corner of the southeast of the southeast of 32-21-12; No. 7 Lauch, southwest corner of the southeast of the southwest of 33-21-12; No. 1 Shepherd, southwest corner of the northwest of 29-21-13.

Marion County—National Refining Company No. 3 Warner, center of the southeast of the northeast of 17-21-4.

Russell County—Valerius Oil & Gas Company No. 16 Oswald-Valerius, southeast corner of the southwest of the northwest of 17-12-15w.

Woodson County — Marland Oil & Christy No. 9 Hesler, southwest corner of the northeast of the southwest of 23-23-13.

OKLAHOMA

Kay County—Comar Oil Company No. 3 Bechtel, northwest corner of the southwest of the southeast of the southwest of 5-28-1w, old well deepened; No. 1-W Bechtel, northwest corner of the southeast of the southeast of the southwest of 5-28-1w. Harris & Haun No. 3 Jameson, southwest corner of the northeast of 8-27-1w. Wentz Oil Corp., No. 10 Mahoney, center of the east line of the northeast of the southwest of the southeast of 28-25-1w.

Osage County—Winona Oil Company No. 6 northeast corner of the southwest of the northeast of the southeast of 20-29-9. Indian Territory Illuminating Oil Co., No. 14, center of the west line of the northeast of the northwest of 15-29-10. Wiser Oil Company No. 15, northeast corner of the southwest of the northeast of the northwest of 27-29-11. Duffield & Howard No. 2, southeast corner of the southeast of the northeast of the southwest of 28-28-11. Skelly Oil Company No. 7, northeast corner of the southwest of 2-27-5. Kewanee Oil Company No. 14, center of the northeast of the southeast of the southeast of 18-27-6. Petroleum Drilling Company No. 16, northeast corner of the southwest of the northeast of the southwest of 26-26-8. Texas Company No. 6, southwest corner of the northeast of the northwest of the southeast of 29-25-8. Lewis Oil Company No. 7, southwest corner of the northeast of the northwest of 29-25-8. Texas Company No. 1, northeast corner of the northwest of the northwest of the northeast of 13-24-8. McCune, Wormiser et al No. 5, southeast corner of the northeast of the southwest of the northwest of 15-24-8. Tidal Osage Oil Company No. 3, center of the southwest of the southeast of the southwest of 24-24-8. Foster, Davis & Landon, No. 8, northwest corner of the southwest of the northwest of the northwest of 36-24-8, old well deepened. Tselos & Roxana No. 3, southwest corner of the southeast of the southwest of the southeast of 1-24-11. Adlum et al No. 2, southeast corner of the northwest of the southeast of the northwest of 8-23-10. Mid Continent Petroleum Corporation No. 1, center of the northwest of the northeast of the southwest of 16-23-10. Amerada Petroleum Corporation No. 18, southeast corner of the northwest of the southeast of 16-22-9. Knaupp et al No. 1, northeast corner of the northwest of 28-22-12.

Garfield County—Sinclair Oil & Gas Company No. 15 Kisner (East) southwest of the northwest of the northeast of 19-22-3w; No. 25 Kisner (West), center of the east line of the northwest of 19-22-3w. Imo Oil Company No. 6 McLean, northwest corner of the southwest of the northwest of the southwest of 31-22-3w. Mid Continent Petroleum Corporation No. 1, northwest corner of the southeast of 16-20-4w.

Pawnee County—Mid Continent Petroleum Corporation No. 5 School Land, southwest corner of 36-21-7, old well deepened. Adamson C. O. & G. Co., No. 1, center of the east line of the northeast of the southeast of 31-21-8. Magnolia Petroleum Company No. 4 Fugate, northwest corner of the southeast of the southwest of 9-20-6; No. 2 S. M. Fugate, southwest corner of the northeast of the southwest of 9-20-6; No. 3 Privett, northeast corner of the southwest of the southwest of 9-20-6. Josey Oil Company No. 2 Scott, northwest corner of 22-20-6. McNamara & West No. 1 Webb, southwest corner of the northeast of 21-20-8.

Payne County— Olean Petroleum Company No. 2 Stephenson, northeast of the southeast of the southeast of 14-19-4; No. 3 Farren, southeast corner of the northeast of the northeast of 23-19-4; No. 3 Pleasants, northeast corner of the northwest of the northwest of 24-19-4. Deep Rock Oil & Gas Company No. 4 Barth, northwest corner of the northeast of 26-18-3.

Creek County—Williams et al No. 2 Hawkins, southeast corner of the southwest of 10-17-11. Ireland et al No. 5 Freeman, southwest corner of the southeast of the southeast of 8-17-11. J. H. Wright No. 8 Dawson, center of the north line of the northeast of the southwest of 24-17-10; No. 9 Dawson, center of the east line of the northeast of the southwest of 24-17-10; No. 2 Kocohaney, northwest corner of the southeast of the southeast of 23-17-10, old well deepened. Gled Oil Company No. 2 Ross, southeast corner of the southwest of 13-19-8. Devonian Oil Company No. 2 Miller, center of the east line of the southeast of the northeast of 14-19-8. Alvard & West No. 3 Fry, southwest corner of the northwest of the southeast of 14-17-8. Roxana Petroleum Corp., No. 1 Toney, northwest corner of the southeast of the southwest of 18-17-8. Savoy Oil Company No. 2 Johnson, southeast corner of the northwest of the southeast of 22-17-7. C. G. Tibbens No. 3 Sewell, southeast corner of the northeast of 34-15-8. J. W. Henry No. 3 Davy, southeast corner of the northwest of the southeast of 2-14-8. C. G. Tibbens No. 6 Bruner, northwest corner of the northeast of the southeast of 12-14-8; No. 7 Bruner, northwest corner of the southeast of the southeast of 12-14-8; No. 8, southwest corner of the northeast of the southeast of 12-14-8; No. 9, southwest corner of the southeast of the southeast of 12-14-8. Skelly Oil Company No. 12 McKan, southeast corner of the northwest of the southeast of 12-14-8. Kingwood Oil Company No. 1 Boyd, southeast corner of the northeast of the northeast of 30-19-8. Independent Oil & Gas Company No. 1 Dickson, southwest corner of the southeast of the southwest of 19-17-10. Dillard et al No. 1 Gwin, center of the northwest of the northeast of 22-17-10. Shaffer Oil & Refining Company No. 4 Wacocka, northwest corner of the northeast of the northeast of 17-17-11. Mid Continent Petroleum Corporation No. 4 Walker, southeast corner of the southwest of the northwest of 32-14-10. H. C. Wilson No. 1 Ashbury, northeast corner of the southeast of the northeast of 1-15-10. Wilcox & Oswalt No. 3 Anthis, southwest corner of the southeast of the southwest of 1-16-11.

Lincoln County—Wilcox Oil & Gas Company No. 1 Lillibridge, northeast corner of the northwest of 25-15-3. Independent Oil & Gas Company No. 2 Howard, northwest corner of the southwest of the southwest of 5-15-6. Texas Company No. 8 Hopkins "B", southeast corner of the southwest of the southeast of 2-14-5; No. 1 Hopkins "C", northwest corner of the southeast of the southeast of 2-14-5.

Tulsa County—O'Brien et al No. 2 Perryman, center of the east line of the northwest of the southwest of 24-19-12. Madden & Madden No. 1 Richard, northeast corner of the southeast of the southeast of 36-18-9. Green et al No. 4 Gaines, center of the west half of the northeast of the southwest of the northwest of 4-16-13, old well deepened. W. O. Dickenson No. 1-A Cooper, center of the east line of the north half of the southwest of the southwest of 12-16-13.

Okfuskee County—J. R. Burns No. 4 Simmons, center of the north line of the northwest of 7-12-11, old well deepened; No. 7 Simmons, northwest conrner of the southwest of the northwest of 7-12-11. Josey Oil Company No. 2-A Fields, southeast corner of the northeast of the northeast of 32-12-11, old well deepened.

Okmulgee County — Oklahoma Natural Gas Company No. 3 Tiger, southeast corner of the northwest of the southeast of the southeast of 24-16-12. Carter Oil & Owens No 1 Houston, northeast corner of 30-16-12. Kellough et al No. 4 Thompson, southeast corner of the northwest of the southeast of 29-15-11. Page Brothers Oil Company et al No. 1 Brown, southeast corner of the northeast of 24-15-12. Simmons et al No. 1 Kellough, northwest corner of the northeast of 21-14-11, old well deepened. Wigton & Long No. Milroy, southwest corner of the southeast of the northeast of 29-13-11. Carter Oil Company No. 2 Kanard, southwest corner of the northwest of the northeast of 18-12-12; Independent Oil & Gas Company No. 2 Clark, center of the east line of the northeast of the northwest of 18-12-12. Independent No. 3 Clark, northeast corner of the southeast of the northwest of 18-12-12. Devonian Oil Company No. 13 Wisner, center of the south line of the north half of the southeast of the southeast of 7-15-13. W. R. Sommerville No. 1 King, northwest corner of the southeast of the southwest of 9-13-15.

Wagoner County—Neal & Cartwright No. 2 Childers, northwest corner of the northwest of 35-18-16.

Seminole County — Amerada Petroleum Corporation No. 7 Palmer, southeast corner of the northeast of the southwest of 36-10-9. Barnsdall & Waite Phillips No. 1 Ingrams, northeast corner of the southwest of 10-9-5. Gypsy Oil Company No. 1 School land, northeast corner of lot 1, northeast of the northwest of the northeast of section 16-9-5; No. 1 Brewer center of the southwest of the southeast of the southwest of 10-9-6. Tidal Osage Oil Company No. 1 Noble, center of the northeast of the northwest of the northwest of 15-9-6. Shaffer Oil & Refining Company No. 2 Jefferson, center of the southeast of the northeast of the northeast of 18-9-8.

Hughes County—Transcontinental Oil Company-Independent Oil & Gas Company No. 2 Harjo, southeast corner of the northwest of the southwest of 26-9-9. Gypsy Oil Company No. 3 Long, center of the southwest of the southeast of the southeast of 27-9-9.

Pontotoc County—Bingam et al No. 1 Blackburn, southwest corner of the northeast of the northwest of 31-4n-7e.

Carter County—Atlantic Oil Producing Company No. 1 Eason, center of the northwest of the southwest of the northeast of 19-1s-3w. Twin State Oil Company No. 3 Carpenter, center of the northwest of the northeast of the northwest of 22-2s-3w. Magnolia Petroleum Company No. 1 Wilson, center of the northeast of the southeast of the southeast of 15-2s-2w; Magnolia No 1 Cox, center of the southeast of the northeast of the southeast of 16-2s-2w. Merrick et al No. 1 Fitzgerald, center of the northeast of the northeast of the southeast of 8-3s-2w.

LOUISIANA

Beauregard Parish—American Lumber Co.'s Green Hennigan 1, 36-2s-12w, 990 ft S and 1650 ft W of NE Cor. of Sec.

Bossier Parish—Louisiana Oil Ref. Corp.'s Bodcaw Fee D-29, 15-19n-11w, 150 ft N and 843 ft W of SE cor. NW¼ of SE¼.

Caddo Parish—Arkansas Natural Gas Co.'s C. W. Lane 1, 13-21n-15w, 660 ft N and 165 ft E of Center of Sec. Dixie Oil Co. Inc.'s Donovan 4, 21-22n-15w, 140 ft N and 1190 ft E of Center of Sec. T. S. Schroeder, et al's Dreyfuss-Lane 2, 15-21n-15w, 560 ft N and 360 ft W of SE Cor. SW¼ of NE¼. The Texas Co.'s Caddo Mineral Lands 47, 23-21n-15w, 960 ft E and 800 ft S of Center of Sec; Russell 11, 3-20n-16w, 150 ft S and 8 ft W of Center of Sec.

Calcasieu Parish—The Union Sulphur Co.'s McCoy 1, 27-8s-9w, 200 ft S and 100 ft W of NE Cor. SW¼ of NW¼.

De Soto Parish—The Texas Co.'s B. Y. Wemple A-10, 2-12n-12w, 1120 ft W and 240 ft S of NE Cor. of Sec.

La Salle Parish—Atlantic Oil Prod. Co.'s Tullos 5, 23-10n-1e, 150 ft N and 150 ft W of SE Cor. of W½ of SE¼ of SE¼; Tullos 8, 23-10n-1e, 150 ft N and 150 ft E of SW Cor. of E½ of SW¼ of SE¼. Cook Drilling Co.'s Russell 1, 25-10n-1e, 125 ft S and 560 ft W of NE Cor. NW¼ of SW¼. Dixie Oil Co. Inc.'s Urania Lbr. Co. 3, 24-10n-1e, 660 ft N and 200 ft W of SE Cor. SW¼ of SE¼. Explorer Oil Co.'s Louis Tullos 1, 23-10n-1e, 495 ft E and 150 ft N of SW Cor. of SE¼. Dr. J. Q. Graves, Tr.'s King 1, 25-10n-1e, 555 ft N and 225 ft W of SE Cor. SE¼ of SW¼. R. C. Greenwall's Sayers 1, 25-10n-1e, 630 ft N and 528 ft W of SE Cor. NE¼ of SE¼. H. M. Jones' Russell 2, 25-10n-1e, 150 ft S and 510 ft E of NW Cor. NE¼ of SE¼; Russell 3, 25-10n-1e, 510 ft S and 510 ft E of NW Cor. NE¼ of SE¼; Russell 4, 25-10n-1e, 510 ft S and 150 ft E of NW Cor. NE¼ of SE¼. Natural Gas & Fuel Corp.'s Hardy Tullos 1, 26-10n-1e, 175 ft S and 150 ft W of NE Cor. SW¼ of NE¼. Standard Drilling Co.'s Bass 1, 26-10n-1e, 250 ft S and 150 ft W of NE Cor. SE¼ of NE¼. G. W. Zeigin's Urania 2, 18-10n-2e, 1520 ft N and 1527 ft E of SW Cor. of Sec.

Ouachita Parish—J. M. Huber Co. of La.'s Bank of Jerseyville 3, 36-19n-4e, 1980 ft S and 880 ft W of NE Cor. of Sec.

ARKANSAS

La Fayette County—Arkansas Fuel Oil Co.'s Red River 2, 18-19-24, 200 ft N and W of SEc SW¼ SE¼.

Miller County—Humble O. & R. Co.'s J. W. Crank 1, 5-17-25, 200 ft E and 100 ft S of NWc of section.

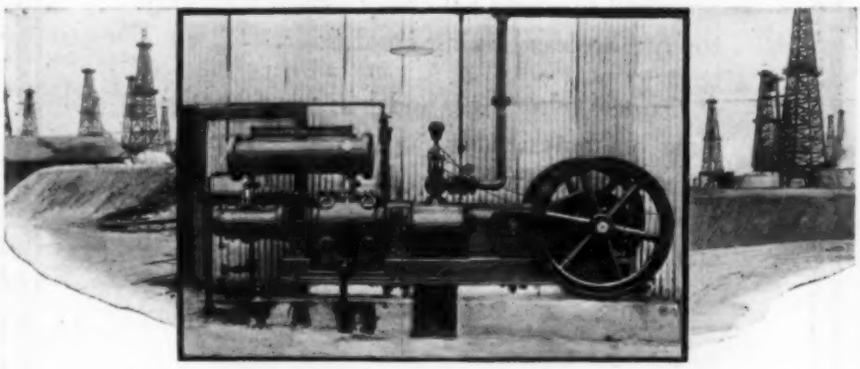
Nevada County—Bemis et al's Ellis 2, 2-14-21, 660 ft E and 150 ft S of NWc SE¼ SE¼. Humble O. & R. Co.'s Calloway 1, 10-15-22, 2490 ft E and 660 ft S of NWc. Keystone Pet. Co.'s J. P. Waters 7, 10-14-21, 150 ft N and W of SEc NE¼ NE¼. Zingg et al's Womack 4, 10-14-21, NEc SE¼ SE¼.

Ouachita County— E. M. Harrell's Moline Timber Co, 1, 32-11-17, 275 ft N and 250 ft E of SW cor of section. Humble O. & R. Co.'s Arnold B-11, 25-15-16, SEc NE¼ NW¼; F. A. and B. T. Laney 3, 31-15-15, SWc NE¼ SE¼. Louisiana Oil Ref. Corp.'s Green 1, 22-15-19, 330 ft S and E of NWc NW¼ SE¼. Marine Oil Co.'s Snyder 12, 34-15-15, center of north line NW¼ SW¼. Roxana Pet. Co.'s Berg A-4, 28-15-15, 200 ft N and 270 ft W of SEc NE¼ SW¼. Sinclair Oil Co.'s Flenniken 9, 6-16-15, 300 ft S and 200 ft W of NEc Lot 1 in NW¼.

Union County—El Dorado Union Oil Co.'s Ennis 1, 23-17-16, NWc NE¼ NE¼. Federal Pet. Co.'s Wells B-2, 15-16-15, NWc SE¼ NW¼. Imperial O. & G. Co.'s McClanahan 12, 6-16-15, NWc Lot 2 in NE¼. Inter-Ocean Oil Co.'s Johnette 2, 23-15-16, 150 ft S and E of NWc W½ SW¼ NE¼. Lion O. & R. Co.'s Wilson 3, 17-16-15, 150 ft S and 300 ft W of NEc S½ NE¼ NW¼. Little Ray Oil Co.'s Burns 3, 17-16-15, NWc E½ NE¼ SW¼. Magna Oil Co.'s LeCroy 3, 17-16-15, NEc of section. Magnolia Pet. Co.'s Hatfield 4, 7-16-15, NWc SW¼ NE¼ NE¼. Marine Oil Co.'s Slaughter 1, 9-17-16, NWc SW¼ SE¼ Rovenger Oil Corp.'s Dumas 4, 9-17-16, 330 ft N and W of SEc SE¼ SW¼; Goodwin 1, 16-17-16, SEc NE¼ NW¼; Harrell 1, 15-17-16, NWc NW¼ SW¼. Simms Oil Co.'s Cook 7, 16-16-15, NWc NW¼ NE¼. Sinclair Oil Co.'s Flannigan 8, 6-16-15, 144 ft N and 242 ft W of SEc Lot 1 NW¼. Unity Pet. Co.'s Roper 7, 3-16-15.

TEXAS

Archer County—Maer & Staniforth, City Nat. Bank Bldg., Wichita Falls, J. E. Morrison 1, 1580 TE&L sur, 150 ft to N and W lines. Bass & Dillard, Wichita Falls, J. Darilek 1, 1582 TE&L sur, 750 ft to W and 150 ft to S line. Oil Investment Co., Staley Bldg., Wichita Falls, Fee 13, J. Richards sur, 315 ft N No. 9. Shaw & Rathke, Wichita Falls, J. S. Matlock 1-B, J. Dorsey sur, 150 ft to S and E lines. McCarty Oil Co., Bob Waggoner Bldg., Wichita Falls, L. F. Wilson 6, SP Ry No. 4 sur, 300 ft W No. 5. British American Oil Prod. Co., Wichita Falls, M. E. Rogers 12, 1800 TE&L sur, 300 ft W No. 9. Freeman-Hampton Oil Corp., Wichita Falls, W. P. Ferguson 20-A, B1, SP Ry sur, 250 ft to W and 400 ft to S line. American Ref. Co., Wichita Falls, W. H. Portwood 6, 1581 TE&L sur, 400 ft W No. 5. Pandem Oil Corp. & Simms Oil Co., Wichita Falls, Fee 9, 2433 TE&L sur, 300 ft E No. 3; 10, 600 ft E No. 7. United Production Co., City Nat. Bank Bldg., Wichita Falls, R. O. Prideaux 1, J. J. Hand sur, 150 ft to E and 450 ft to S line. Consolidated Oil Co. of Texas, Wichita Falls, A. L. Harris 1, B 75, Harris sur, 700 ft to S and 150 ft to W line; J. B. Wilson 1, Dallas CSL sur, 150 ft to N and W lines; D. L. Wolf 1, S 1, SP Ry sur, 150 ft to S and E lines. Atlantic Oil Prod. Co., Magnolia Bldg., Dallas, S. E. Oldham 1, A. Hubbell sur, 150 ft to S and E lines. W. C. Young, Harvey-Snider Bldg., Wichita Falls, C. B. Abney 3, B 1, SP Ry sur, 300 ft N No. 1. Texas Co., Wichita Falls, Carter Bros. 11, B 160, Amer. Trib. sur, 300 ft S No. 9; J. H. Turbeville 1, B 145 R. Carson sur, 1200 ft to W and 800 ft to S line; B. R. Jeske 4, B 6, T. McCoy sur, 1325 ft to E and 821 ft to S



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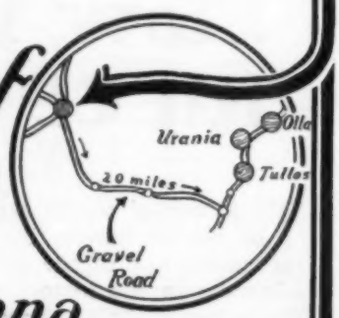

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line. Prairie Oil & Gas Co., Ranger, G. M. Boren 4, R. D. Newman sur, 150 ft to S and E lines; J. Kreeger 4, 2434 TE&L sur, 300 ft N No. 3; 5, 300 ft S No. 1. Empire Gas & Fuel Co., Staley Bldg., Wichita Falls, Young & Langford 1, S 135, Harris sur, 1050 ft to N and W lines. Pandem Oil Corp. & M. L. Richards, Wichita Falls, Trinity Townsite Co. 1, 2433 TE&L sur, 150 ft to S and 170 ft to E line. Texhoma Oil & Ref. Co., Wichita Falls, S. E. Oldham 12, E. Hubbell sur, 150 ft to N and 505 ft to E line; C. L. Abercrombie 4, SP Ry sur, 150 ft to W and 1160 ft to S line; D. L. Wolf 1, J. Poitevent sur, 150 ft to N and 485 ft to E line. Consolidated Oil Co., Wichita Falls, J. Kreeger 2, 2434 TE&L sur, 150 ft to N and W lines. Gary E. Prebensen, City Nat. Bank Bldg., Wichita Falls, A. J. Evans 1, S 5, SP Ry sur, 150 ft to N and W lines. W. B. Omohundro, Perkins-Snider Bldg., Wichita Falls, W. H. Chilson 5, B 2, M. Ramsey sur, 450 ft to N and W lines. Murchison & Fain Oil Co.'s Wichita Falls, W. O. Wright 1, 2435 TE&L sur, 150 ft to S and W lines; L. Kunkel 1, T. McCoy sur, 450 ft to S and E lines. Magnolia Petroleum Co., Dallas, Cowden-Portwood 9, 1581 TE&L sur, 150 ft to S and W lines; A. J. Lowe 14, B 2, I. Holman sur, 300 ft S No. 13. Bridwell & Heydrick, Wichita Falls, G. M. Boren 9, R. Newman sur, 310 ft N No. 3. Petroleum Prod. Co., City Nat. Bank Bldg., Wichita Falls, D. L. Wolf 5, SP Ry sur. F. S. Whitman, 1212 Polk St., Wichita Falls, A. D. Britton 1, H. H. Kirk sur, 1500 ft to W and 392 ft to S line. Gulf Production Co., Fort Worth, C. W. Coffield 1, J. Levins sur, 1860 ft to E and 1000 ft to S line; W. T. Coffield 1, A. P. Richardson sur, 1642 ft to W and 150 ft S line; M. W. Jackson 1, W. B. Aldridge sur, 1340 ft to W and 150 ft to N line; E. S. Monohan 26, 1599 TE&L sur, 400 ft S No. 21. Craig & Wilson, Harvey-Snider Bldg., Wichita Falls, H. A. Longley 1, J. B. Hinds sur, 150 ft to N and W lines. M. & V. Oil Co., Box 493, Wichita Falls, A. M. Kunkel 4 S 3, BBB&C Ry sur, 300 ft E No. 2. Underwood Drilling Co., Harvey-Snider Bldg., Wichita Falls, L. W. McCrory 1, S 100, Amer. Trib. sur, 660 ft to W and 450 ft to S line. Ray & Massie, Wichita Falls, First State Bank 1, 2434 TE&L sur, 150 ft to S and E lines. Camp Oil & Gas Co., Harvey-Snider Bldg., Wichita Falls, R. Campbell 1, 1377 TE&L sur, 1050 ft to E and 150 ft to S line. N. D. Goldsmith, Olney, G. B. Hamilton 1, 1810 TE&L sur, 150 ft to N and W lines.

Brown County—J. H. West & H Y Oil Co., Cisco, J. W. Newton 2, R. Mitchell sur, 1020 ft to N and 150 ft to W line. Dublin Dev. Corp., Dunn Bldg., Fort Worth, T. C. Brown 1, KCSL sur, 150 ft to S and W lines. Mahlstedt Oil Co., Fort Worth, L. V. Edington 1, R. G. Millican sur, 150 ft to N and 350 ft to W line. E. L. Smith Oil Co., Mexia, A. Cheatham 1, S 616, A. Winter sur, 300 ft to S and 200 ft to W line. Sirmans Oil Co., Brownwood, G. M. Grooms 3, J. M. Ross sur, 450 ft to S and W lines; 4, 300 ft N No. 1. E. L. Britt, Box 355, Brownwood, T. M. Windham 1, S 136, N. B. Mitchell sur, 400 ft to E and 250 ft to S line. B. D. Dozier, Cross Plains, J. Byrd 2, W. B. Travis sur, 1050 ft to W and 1350 ft to S line. Humble Oil & Ref. Co., Wichita Falls, J. T. Hodnett 1, 2269 TE&L sur, 1400 ft to W and 200 ft to S line.

Baylor County—G. C. Wood et al, Box 378, Wichita Falls, R. Stevens 1, 3102 TE&L sur, 150 ft to N and W lines. Roxana Petroleum Corp., South Bend, W. E. Alexander 1, 2465 TE&L sur, 150 ft to S and E lines.

Bastrop County—Cranfill & Reynolds, Cisco, J. V. Fisher 1, E. Stamdifer sur, 150 ft to N and W lines.

Bexar County— Associated Petroleum Co., Fort Worth, W. R. Caruthers 4, W. Caruthers sur, 525 ft N No. 3.

Callahan County—C. O. Moore et al, Cross Plains, J. W. McDaniels 5, CCSL sur, 50 ft E No. 5. L. C. Henseleit, Cisco, J. A. Barr 1, B 57, CCSL sur, 150 ft to N and 450 ft to E line. W. R. Andrews et al, Putnam, R. D. Williams 50, 2973 TE&L sur, NW corner. Watts & Brown, Box 672, Moran, T. A. Wylie 1, S 122, Univ. Lands sur, 450 ft to N and E lines. Chas. D. Roberts, Putnam, J. M. Isenhour 2, 2273 TE&L sur, 1350 ft to W and 1050

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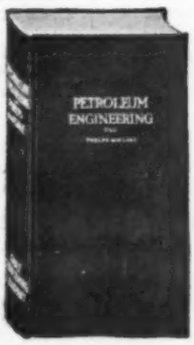
March 17 and 18, 1926, at Pawhuska, Oklahoma, about 115,000 acres will be offered for oil leases in quarter section tracts. Bids will be for bonus in addition to royalties, 25% payable on day of sale, balance in three annual instalments, with acceptable security. Within advertised area there are about 9479 oil wells producing from one barrel to 1200 barrels each, the total daily production for December, 1925, being about 70,000 barrels; also, there are about 80 wells drilling. All lands are now leased separately for gas. Blue print maps of area advertised, showing tracts producing oil or gas, can be had for fifty cents each, also logs of producing oil or gas wells for twenty-five cents each well. Write U. S. Superintendent, Osage Agency, Pawhuska, Oklahoma, for maps, logs or other information.



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ft to S line. M. A. White et al, Box 301, Putnam, A. W. Warren 4, 2039 TE&L sur, 300 ft W No. 3. Wilkerson & Lightfoot, Cross Plains, J. A. Barr 1, A. Cheery sur, 150 ft to N and E lines. H. Y. McDonald, Box 345, Putnam, R. D. Williams 5, 2269 TE&L sur, 275 ft to N in center of line. C. B. Holmes, Baird, F. S. Bell 1, S 77, Bayland Asy sur, 450 ft to S and W lines. Graham & Lash, Moran, E. J. Eubanks 5, S 4, D&D Asy sur, 450 ft SW No. 4. Dickey Oil Co., Putnam, J. Cottle 4, 2048 TE&L sur, 150 ft to E and 840 ft to S line. W. R. Andrews et al, Putnam, R. D. Williams 51, 2973 TE&L sur, 2360 ft to N and 285 ft to W line. Miller & Miller, Putnam, G. Anthony 7, S 1, D&D Asy sur, 300 ft E No. 6. Kirk & Brewer, Gorman, P. Anderson 1, Central Add. center of Blk 11. Clark Harbin & Baldridge, Wichita Falls, H. W. Semans 1, G. Anderson sur, 150 ft to S and W lines. W. B. Ashley, Box 274, Moran, T. E. Hayden 5, S 115, Univ. Lands sur, 450 ft to N and W lines. G. L. Lyda, Box 197, Putnam, J. B. Brandon 1, 2267 TE&L sur, 450 ft to W and 150 ft to S line. Jno. Knox, Jr., Eastland, J. H. Burnam 1, 2290 TE&L sur, NE corner. West & Fee, First Nat. Bank Bldg., Cisco, J. A. Burnham 6, 2290 TE&L sur, 300 ft S No. 5. J. A. Jones, Moran, A. W. Warren 6, 2039 TE&L sur, 760 ft to N and 150 ft to W line.

Coleman County—White Eagle Oil & Ref. Co., Fort Worth, J. F. Casey 1, H. Cochran sur, center. Tidal Oil Co., W. T. Waggoner Bldg., Fort Worth, J. P. Helms 2, B 14, A. White sur, 1660 ft to N and 750 ft to W line. Jos. Burt, Box 766, Brownwood, J. McClatchey 1, J. Perry sur, 1320 ft to N and 1110 ft to E line. Archie Shaw, Burkett, W. T. Burns 2, A. Wickson sur, 600 ft S No. 1. R. W. Raney, Breckenridge, M. Overall 1, 294 W. Wooley sur, 600 ft to S and E lines. Canyon Oil & Gas Co. and Cromwell Oil & Gas Co., Cross Plains, J. W. Harris 13-A, J. Sanders sur, 600 ft S No. 12; 14-A, 600 ft E No. 11. Monroe Production Co., Box 446, Colmean, J. H. Hutchings 1, S 11, B 1, GH&H Ry sur, 200 ft to S and W lines. Superior Oil Prod. Co., Bradford Bldg., Wichita Falls, W. I. Helton 1, E. N. Eubanks sur, 1192 ft to E and 844 ft to S line.

Caldwell County — Geo. M. Ball, Maverick Bldg., San Antonio, M. L. Brewer 1, 150 ft to N and W lines. C. N. White, 120 W. Park Ave., San Antonio, F. A. Cardwell 2, 300 ft S No. 1. Glasscock Bros., Box 825, San Antonio, F. A. Cardwell 3, F. Castillo sur, 150 ft to N and W lines.

Comanche County—H. C. Miller, Gude Hotel, Cisco, A. L. Roe 1, No. 1 HT&B Ry sur, 566 ft to W and 450 ft to S line.

Eastland County—Gulf Production Co., Fort Worth, L. Kinnebrew 1, S 29, H&TC Ry sur, 2640 ft to E and 330 ft to S line. Prairie Oil & Gas Co., Ranger, H. P. Brelsford 2, E. Finley sur, 1300 ft to N and 660 ft to E line.

Gray County—Clark & Dale, Harvey-Snider Bldg., Wichita Falls, Merten Bros. 1, S 82, B 3, I&GN Ry sur, center of NW¼.

Guadalupe County—Humble Oil & Ref Co., Houston, E. Wohlfort 1, M. Brown sur, 450 ft to S and 150 ft to E line.

Harris County — Gulf Prod. Co., Houston, Hirsch 5, Altmont sur, 800 ft E No. 4. Humble Oil & Ref. Co., Houston, Simms-Smith 67, Wm. Scott sur, 235 ft S No. 49.

Hutchinson County—Triangle Oil Co., Amarillo, H. E. Smith 1, S 5, B Y, M&C sur, 250 ft to E and 300 ft to S line. Phillips Petroleum Co., Bartlesville, Okla., E. Cockrell 1, S 2, B Y, M&C sur, 332 ft to W and 346 ft to N line. Cockrell-McIlroy Oil Co. Inc., Amarillo Bldg., Amarillo, H. E. Smith 1, S 14, B Y, M&C sur, 330 ft to N and E lines. Dunigan et al, Panhandle, J. A. Whittenburg 1, S 13, B Y, M&C sur, 330 ft to N and 360 ft to E line. Smith & Bynum, Amarillo, Fee 1, S 12, B Y, M&C sur, 225 ft to N and 183 ft to W line. White Eagle Oil & Ref. Co., Wichita Falls, Johnson Bros. 1, S 64, H&TC Ry sur, 330 ft to S and E lines. Texas Co., Wichita Falls, S. B. Burnett 7, S 132, I&GN Ry sur, 400 ft to N and E lines. B. C. D. Bynum, Amarillo, T. B. Lewis 1, S 8, B 23, BS&F Ry sur, 1843 ft to center. Phillips Petroleum Co., Bartlesville, Okla., J. Wright 1, S 5, B Y, M&C sur, 305 ft to S and W lines; 2, 392 ft to N and 272 ft to W line; 3, 330 ft to N and E lines; 4, 330 ft to S and E lines.

Hill County—Merritt & Jewell, Elks Club Bldg., Dallas, J. H. Hays 1, N. H. Greer sur, 190 ft to W and 200 ft to S line.

Jackson County—C. K. Fuqua 1, I. Manso sur, 300 ft to S and 575 ft to E line; I. G. Drushel 1, F. Rodriguez sur, 700 ft to S and E lines; 2, 800 ft to E and 800 ft to S line; 3, 1280 ft W No. 2. Wright Bros., Edna, R. E. Lee 1, F. Rodriguez sur, NE corner; S. M. Putnam 1, F. Rodriguez sur, 1800 ft to W and 1300 ft to S line; Classen 1, W. Bridges sur, 1900 ft to W and 1800 ft to S line.

Jim Hogg County—Magnolia Petroleum Co., Dallas, A. Martinez 12, S 256, TC Ry sur, 150 ft to S and W lines.

Jefferson County — Gulf Production Co., Houston, I. R. Bordages 1, M. Bowser sur, south central; Gladys 215, J. A. Veatch sur, NW cor of Blk. 37; 220, SW corner of Blk. 30.

Kleberg County — Humble Oil & Ref. Co., Houston, Cross State Land 3, State Land sur, 400 ft W No. 2.

Liberty County—Gulf Production Co., Houston, J. C. Baldwin 16, J. Devore sur, 250 ft S No. 15; E. M. Scarborough 12, No. 26 I&GN Ry sur, 520 ft W No. 14; Phoenix 66, J. Devore sur, 300 ft E and 140 ft S of No. 61. Higgins Oil & Fuel Co., Houston, W. W. Merchant 10, J. Devore sur, 42 ft to N and 419 ft to E line.

Live Oak County—W. J. Walton et al, Three Rivers, J. A. Odom 2, B 30, Everett sur, 1000 ft to W and 300 ft to N line.

Milam County—Rountree, White & Simpson, Rockdale, Fee 13, Chambers sur, 155 ft to S and E lines. Kent & Middleton, Corsicana, J. W. Roark 4, T. J. Chambers sur, 150 ft to S and E lines; 9, 150 ft to S and E lines.

Montague County—Texas Co., Wichita Falls, I. A. Gist 6, W. Donoho sur, 400 ft N No. 5; J. W. Cunningham 1, Hodges & Norton sur, 150 ft to N and W lines. Faubion & Lawrence, Staley Bldg., Wichita Falls, L. Crenshaw 1, W. Wallace sur, 320 ft to N and 491 ft to E line. Gulf Production Co., Fort Worth, R. W. Cunningham 1, J. H. Hodges sur, 150 ft to W and 1943 ft to S line. Texhoma Oil

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& Ref. Co., Wichita Falls, N. J. Howard 8, J. Chambliss sur, 789 ft to W and 2737 ft to S line.

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Medina County—Ina Oil Co., San Antonio, V. Wilson 1, B 112, S 343, 150 ft to N and W lines.

Navarro County—G. C. Kent, Corsicana, R. Hardy 1, S. F. McCandless sur, 450 ft to E and 300 ft to SE line.

Reagan County—Big Lake Oil Co., Best, University 63, S 25, B 9, Univ. Lands sur, 141 ft SE No. 11; 64, 800 ft S No. 5. Big Lake Oil Co., Best Texas, University 65, S 11, B 2, 1867 ft NW No. 15; 66, 1418 ft NE No. 54; 67, S 36, B 1, 1320 ft E No. 54. Texas Co., Houston, J. D. Sugg 1, S 107, B 2, T&P Ry 3358 ft to W and 2640 ft to S line.

Orange County—Gulf Production Co., Houston, O. Chesson 3, W. Dyson sur, 275 ft to W and 36 ft to N line; Lee Hager 21, S. M. Luce sur, 250 ft NE No. 19.

Stephens County—Humble Oil & Ref. Co., Cisco, J. D. Yoes 1, S 32, T&P Ry sur, 150 ft to W and 300 ft to N line. Federal Oil Corp., Eureka, Kansas, K. Gratz 1, 3022 TE&L sur, 300 ft to N and E lines. Necessity Oil Co., American Exchange Nat. Bank Bldg., Dallas, L. M. Crowley 4, S 32, T&P Ry sur, 330 ft to S and W lines. Gulf Production Co., Fort Worth, J. M. Ward C-29, S 7, T&P Ry sur, 241 ft to N and 330 ft to E line.

Shackelford County—A. L. Slaughter, 703 N. Windmore Ave., Dallas, J. Blach 1, 539 TE&L sur, 600 ft to NE and 300 ft to SE line. Hotchkiss & Willard, Baird, C. B. Snyder 4, S 59, LAL sur, 300 ft to N and 1370 ft to E line. Detroit Oil Co., Westbrook Hotel, Ft. Worth, W. D. Reynolds 1, S 38, T&P Ry sur, 150 ft to N and E line. Graham & Lash, Morgan, J. T. Cockrell 5, S 6, LAL sur, 450 ft to E and 150 ft to S line. Alex. Sommer & Son, Box 684, Moran, L. H. Wild 7, B 69, Univ. Lands 200 ft N No. 5. L. B. Tannehill, Albany, R. J. Moberly 3, S 12, T&P Ry sur, 155 ft to W and 670 ft to S line.

Throckmorton County—Humble Oil & Ref. Co., Wichita Falls, Ledbetter 1, No. 2 W. S. Riddle sur, West central.

Taylor County—J. J. Mathis, 1607 Tenth St., Wichita Falls, S. G. Hatchett 1, S 23, 150 ft to S and W lines.

Upton County—Choate & Henshaw, San Angelo, Noelke & Murphy 1, B 2, S 20, GC&SF Ry sur, 1320 ft to S and W lines.

Wichita County— Holbrook & Woods, City Nat. Bank Bldg., Wichita Falls, Kemp & Kempner 1-E, B 53, WVFL sur, 150 ft to W and 1050 ft to S line. Hammon & Garrett & Thornberry, Wichita Falls, S. H. McCarty 11, S. O. Fowler sur, NW No. 10; 12, south central. T. F. Hunter, Wichita Falls, J. & J. Waggoner 10, GC&SF Ry sur, 150 ft to E and 490 ft to S line. Conrey, Williams & McDonnell, Wichita Falls, Horton 11, BBB&C Ry sur, 1050 ft to S and 150 ft to W line. Magnolia Petroleum Co., Dallas, Rio Bravo 54, S 31, H&TC Ry sur, 75 ft NW No. 18. S. I. McCracken, Chenault Bldg., Wichita Falls, S. A. Waite 3, BBB&C Ry sur, 750 ft to W and 450 ft to S line. Dale Oil Corp., City Nat. Bank Bldg., Wichita Falls, R. C. Turman 1, J. W. Massie sur, 800 ft to W and 150 ft to S line. Rio Bravo Oil Co., S. P. Bldg., Houston, Fee A-15-B, S 31, H&TC Ry sur, 300 ft N No. 13. Petroleum Prod. Co., Wichita Falls, Kemp & Allen 19-B, B 28, WVFL sur, 450 ft to N and 150 ft to W line.

Wilbarger County—Humble Oil & Ref. Co., Wichita Falls, W. T. Waggoner 2, S 46, H&TC Ry sur, 340 ft E No. 1; 3, 150 ft to N and E lines; Chauncey & Gambil 1, S 21, H&TC Ry sur, 1158 ft to N and 2370 ft to E line. Magnolia Petroleum Co., Dallas, Waggoner 2, S 59, H&TC Ry sur, 150 ft to S and W lines. Landreth Production Corp., Vernon, W. T. Waggnoer 3, S 43, H&TC Ry sur, 439 ft S No. 2; 7, S 43, H&TC Ry sur 639 ft to S and W lines; 5, S 42, H&TC Ry sur, 323 ft S No. 1.

Wharton County—Sinclair Oil & Gas Co., Houston, A. E. Taylor 2, S. F. Austin sur, 200 ft SW No. 1; 3, 50 ft to N and E lines; 4, 200 ft SW No. 2.

Young County—Reed & Anderson, Olney, O. Anderw 1, 201 TE&L sur, NW corner. Bridwell & Heydrick, Wichita Falls, W. R. Farmer 1, S 8, J. Anderson sur, 150 ft to N and E lines. O. G. Adams, Wichita Falls, S. McClatchey 1, 171 TE&L sur, 150 ft to S and W lines. Whiburt Oil Corp., Staley Bldg., Wichita Falls, W. Graham 1, 195 TE&L sur, 150 ft to S and E lines. Swastika Oil Synd., Box 278, Olney, J. R. Wilson 1, 162 TE&L sur, 150 ft to S and W lines. Underwood Drilling Co., Harvey-Snider Bldg., Wichita Falls, S. M. J. Benson 1, 1391 TE&L sur, 150 ft to N and 752 ft to E line. Clark, Harbin & Baldridge, Wichita Falls, J. E. Bishop 4, 162 TE&L sur, 450 ft to N and 625 ft to W line. E. S. Carey Drilling Co., City Nat. Bank Bldg., Wichita Falls, J. W. Thomas 1, 1901 TE&L sur, 150 ft to N and 750 ft to W line. 900 Oil Co., Burkburnett, Benson 7, 1397 TE&L sur, 300 ft S No. 3. Atlantic Oil Prod. Co., Magnolia Bldg., Dallas, I. E. McClatchey 1, 1476 TE&L sur, 150 ft to S and E lines. Tidal Oil Co., W. T. Waggoner Bldg., Ft. Worth, R. Campbell 20, 1483 TE&L sur, 300 ft S No. 11. Bridwell, Heydrick & Clark, Wichita Falls, G. M. Boren 7, R. Newman sur, 307 ft S No. 3. Atlantic Oil Prod. Co., Magnolia Bldg., Dallas, T. B. Chandler 1, 204 TE&L sur, 150 ft to S and E lines. Roy I. Carter, Wichita Falls, S. M. J. Benson 1, 1450 TE&L sur, 150 ft to N and W lines. O'Neall & Suggett, Wichita Falls, A. M. Weeks 1, 208 TE&L sur, 150 ft to N and W lines. Atlantic Oil Prod. Co., Magnolia Bldg., Dallas, W. Chandler 1, 204 TE&L sur, 150 ft to S and E line. J. N. Tholl et al, Ft. Worth, W. L. Byrd 1, 1447 TE&L sur, 150 ft to N and E lines. Gulf Production Co., Ft. Worth, J. T. Richardson 1, 85 TE&L sur, 600 ft to N and 1865 ft to E line; J. E. Boley 1, 194 TE&L sur, 150 ft to N and W lines. Lesh & Lehman, Box 1043, Wichita Falls, S. B. Kemp 13, 411 TE&L sur, 800 ft to S and 1050 ft to W line. Rowe Drilling Co., Box 626, Wichita Falls, G. B. Hamilton 9, S 1, I. Holman sur, 300 ft W No. 7.

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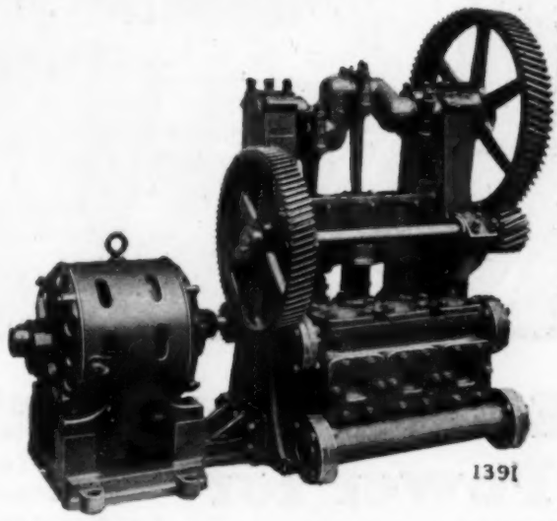

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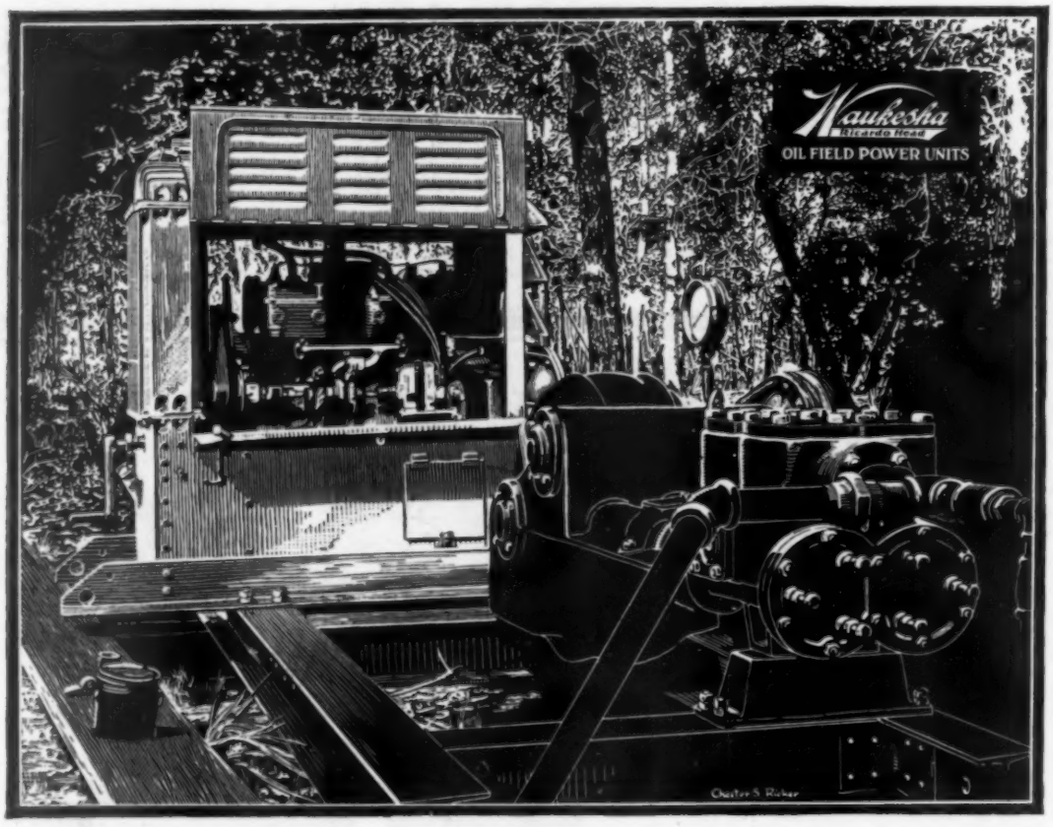

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Kobe Slotted Pipe

Kobe Slotting Process Gives Maximum Strength in Pipe

To meet the demand for an extra strong pipe for deep well drilling, which would eliminate losses from "bad pipe" and costly re-drills, Kobe, Incorporated, 1917 E. 51st Street, Los Angeles, has developed a screen pipe which is described as having maximum strength.

The manufacturer claims that this pipe embraces 87 per cent of the total strength of a solid shaft made from the same material and of the same diameter as standard casing, as shown by strength tests.

The Kobe patented process of slotting retains nearly all the strength of the original blank pipe, according to the manufacturer, and this fact makes it possible to get a screen pipe with a maximum strength factor.

This pipe is proving very popular in California fields where it is being used extensively.

More complete information will be supplied by the company, upon application.

Simplex Fire Snuffer Cuts Down Fire Hazard

Simplex Equipment Company, 629 S. Spring Street, Los Angeles, is marketing the Simplex Fire Snuffer, which it is said, cuts fire instantaneously, practically eliminating the fire hazard in wells.

The snuffer is installed in the casing below the casing head. Steam under pressure is injected into the snuffer through a back-pressure valve and enters the casing through spaced slots or ports, forming a knife-like barrier that chokes off the fire instantly.

Some advantages of the Simplex Fire Snuffer, as listed by the manufacturer, are given below:

1. Prevents Ignition. When a thunderstorm approaches or lightning is prevalent, a light flow of steam may be turned into the casing through the snuffer which will render the fluid noncombustible.

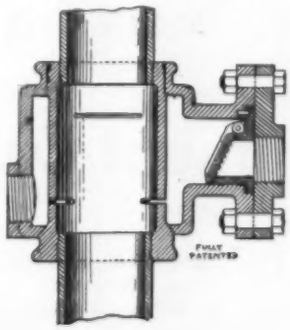
2. The snuffer does away with the necessity of cleaning the tools on the derrick floor after pulling out. This keeps the derrick floor clean and promotes general efficiency.

3. By using the snuffer the tools can be flushed in the casing.

4. The bronze valve prevents back-pressure while the well is shut in.

The snuffer is made in sizes ranging from four and three-quarter inches up to twelve and one-half, and weighs from 125 pounds in the smallest size to 245 pounds in the larger sizes.

Additional information will be furnished by the company, upon request.



Hercules to Distribute Sargent Specialties

Dallas, Texas.—While attending the A. P. I. meeting in Los Angeles, in January, J. T. McCarthy, Hercules Supply Company, completed arrangements with the Sargent Engineering Corporation for handling Sargent products in Texas, exclusively.

The Sargent Corporation manufactures a new and improved line of pumping specialties including a plumb bob type valve, sucker rod rollers, beam hangers and grips.

To fully distribute Sargent products, Hercules Supply Company is developing agencies in other parts of Texas in order that material and service men can be had in every field.

Handy Wrench Catalog

Bonney Forge and Tool Company, Allentown, Pennsylvania, manufacturers of well known and widely used Bonney wrenches, has recently issued Catalog No. 26, in miniature, which mechanics and engineers will find very handy.

Wrenches for all purposes are illustrated and described in the catalog, and prices are included on all wrenches shown.

Copies may be obtained upon application for the same.

Pittsburgh Firm Changes Name

The Pittsburgh Reinforced Brazing and Machine Company, Pittsburgh, Pennsylvania, manufacturers of Kerotest valves and fittings, has announced the change of its corporate title to Kerotest Manufacturing Company, effective on March 1, 1926.

This is a change in name only and does not affect the original organization in any way.

New Gasket Catalog

Catalog 26, issued by the Metallo Gasket Company, 12 to 20 Bethany Street, New Brunswick, New Jersey, will be of much value to users of gaskets, because of the completeness of the line presented and the information regarding that line.

Copies of the catalog will be mailed on request to the company.

National Distributes Valdura

Valdura, a special pipe-line paint manufactured by the American Asphalt Paint Company, 844 Rush Street, Chicago, Illinois, is now being distributed by the National Supply Company, and can be obtained from any of the National's branch stores.

Climax Appoints New Southwest Engine Dealers

Clinton, Iowa.—The Climax Engineering Company, announces the appointment of the Briggs-Weaver Company, Dallas, Texas, as a district representatives. This organization will handle the sale of Climax "Trustworthy" Engines for industrial purposes.

The Clark Machine Company, Wichita Falls, Texas, has also been appointed representative for the sale of the Climax engine for oil drilling purposes. They will operate exclusively in the oil field, where Climax engines are meeting with favor as economical power.

The Petroleum Electric Company, Tulsa, Oklahoma, is a third organization that has taken on the sale of Climax engines in the Southwest.

P. J. Dasey, Wells Hotel, Tulsa, Oklahoma, is in charge of the Southwestern sales territory and will supervise the sales of these new Climax engine dealers.

Facts on Casing

Standard Seamless Tube Company, Pittsburgh, Pennsylvania, has issued supplementary literature for a number of bulletins, copies of which may be obtained upon request.

These supplements are as follows: Bulletin No. 3, page 7, Pulling Out Strength of Casing Joints; Bulletin No. 4, page 3, Pulling Out Strength of Casing Joints; Bulletin No. 5, page 7, Table of Collapsing Pressures for Standard Seamless and Welded Casing; Bulletin No. 6, page 2, Weights per Foot of Standard Seamless Casing.

Government Wants Gaugers

Washington, D. C.—For the purpose of filling vacancies of gaugers in the Indian service in Oklahoma and other vacancies requiring similar qualifications throughout the country the U. S. Civil Service Commission is receiving applications until March 30.

The duties required of those passing the examination will be those of the regular gauger, including familiarity with the methods of strapping tanks and applying formulae for computing their capacity. They must be able to determine the amount of water, sediment, etc., in crude oils, and to compute changes in volume due to variation in temperature. They must also be familiar with modern methods of conserving oil and gas being produced and of protecting streams and farms from salt water, according to the commission's announcement.

Those taking the examination will be graded on their education, training and experience; and a thesis to be filed with the application.

The entrance salary is $1,860 a year with quarters, fuel and light, with opportunities for advancement.

Full information and application blanks will be furnished applicants by the U. S. Civil Service Commission at Washington or by the secretary of U. S. civil service examiners at any postoffice or custom house.

Oil Well in Bruni-Cole Gas Field Is Stirring Activity

Laredo, Texas.—The discovery of gusher oil in the edge of the Cole gas field in Duval County has caused increased interest in this area. Large prices are being paid for leases in the vicinity of the Cintex Petroleum Company's No. 1 Cintex, completed recently at 1782 feet, making an estimated initial production of 5000 barrels.

A tract about one and one-half miles from the field could be leased for $5 an acre when the well was brought in. The price of the leases went up to $10 an acre after the well shot oil over the crown block. During the past few days, the same leases sold for $600 an acre, $300 cash and the remainder in oil. Some prices are now quoted at $500 and $750 cash.

Several tests are to be started in the vicinity of the Cintex well within the next few days. Most of the companies are waiting for storage to be completed so that the well will be opened and prove itself.

For Every Eastern Field and Oklahoma–Wyoming–Kansas

The Regular Style of

NECO PUMP

Is Doing Great Work

The Regular Style Neco Pump

And also in certain parts of Texas, Arkansas and Louisiana, the type of working barrel pump illustrated is providing better service and proving more popular as more and more companies, first test it, then adopt it, as standard equipment.

A typical case of its service is found in the experience of the Mathuska Oil Company.

This company placed its first Neco in a well in which they were forced to change cups every day. That NECO worked for nine months before another cup had to be changed. They are now using this pump on ALL their wells in Kansas.

In the NECO PUMP, the barrel is the moving part of the pump, instead of the plunger. The oil is drawn into the valve on the upstroke and discharged into the tubing on the down stroke.

Neco is the only pump operating in this way.

The lower valve is at the top of the plunger. On all other pumps it is at the bottom.

These two radically different, EXCLUSIVE FEATURES give NECO several advantages all its own which we would like to tell you about.

ASK US TO.

Stocked by Oil Well Supply Co.

Northrup Equipment Co.

Parkersburg, W. Va.

Fort Worth, Tex.
F. J. Ackman
Representative

Nowata, Okla.
H. T. Torner
Representative

Price Advances Increase Field Activity in East

Pittsburgh, Pa.—The recent advances have brought the average operator on his toes in the producing areas east of the Mississippi river, and with the advent of improved weather conditions, the drill will start in an active campaign. Just at the present the heavy snows have caused the shutting down of many wells that would have been brought in otherwise.

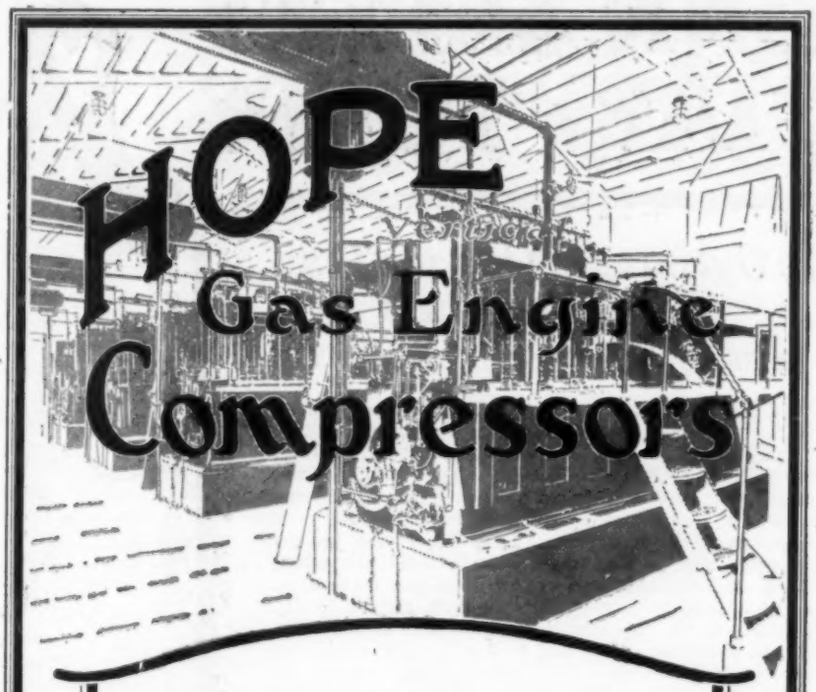
Pennsylvania came to the front with a gusher that is of much importance and indicates that others may follow: This new well was drilled by the Natural Gas Company of West Virginia in No. 3 on the T. F. Rutan lease, a new Gordon sand development between the old Ninevah and Graysville fields, in Morris Township, Greene County, and started flowing at 30 barrels an hour, the first 24 hours gauge being 600 barrels, making it the best completion found anywhere in the East for considerable over a year, with the exception of some about the same size that were found in the Wabash County field of Illinois. In the same pool the Carnegie Natural Gas Company finished a 20 barrel well in No. 2 Jim Rutan lease.

A new grade of crude has been listed in the Pennsylvania fields and found in the vicinity of Keister, a small hamlet a short distance from Grove City, in Butler County. The crude shows an unusually large amount of tar and the well is a small producer. It has been named the "Keister Grade" and the price posted is $2.45 by the Seep Purchasing Agency.

Approximately 20 miles east of the old Trenton Rock Field of northwestern Ohio, and near the city of Port Clinton, on Catawba Island, in Ottawa County, the Catawba Oil and Gas Company's well on the Lundy lease produced a flush of 60 barrels from a depth of close to 2000 feet, the oil coming from the Trenton Rock, which shows a dip of more than 500 feet from the more east wells of the Trenton Rock field.

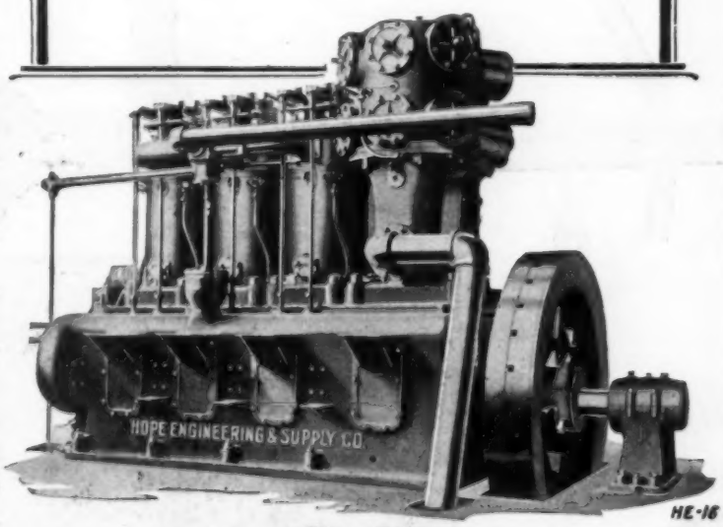
A wildcat well in Ohio County, in the Owensboro district of Western Kentucky, drilled by the Chicago Petroleum Syndicate on the Guenther-Gant lease, after given a shot was reported at 131 barrels flush, being the best completion yet reported from the Owensboro district where more than 200 wells have been completed. This well brought about an active leasing campaign and nearby acreage brought exceptionally good prices. Several new wells will start up in the vicinity as soon as the roads dry up.

In the Central Ohio field, the Hope Construction and Refining Company's thirteenth venture on the Vandewenter lease, in Licking County, produced 115 barrels from the deep Clinton lime, the source of the natural gas supply from that field. The past several months has shown numerous wells in the 100 barrel class in this formation in several of the old gas producing counties.



Even if the Hope Vertical were no better, mechanically, than other compressors, it still would be the least expensive unit you could buy because of its extreme compactness and the resulting lower cost of building, land, plant accessories and installation. But, in addition, it will give you a year-after-year operating economy—including upkeep, depreciation and interest—probably lower than any other type affords, and certainly no higher. The Hope Vertical gives you the biggest return per dollar of investment.

Let us send the specifications



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HOPE Engineering & Supply COMPANY

DESIGNERS MANUFACTURERS

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(Patented)

DUNN SAFETY ROTARY TONGS

OIL WELL DUNN TOOLS

The Symbol of Safety in Oil Field Practice

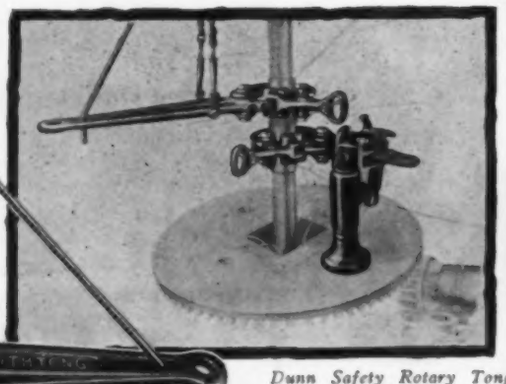
An Outstanding Rotary Tong One of the Latest Dunn Safety Appliances

SCIENTIFICALLY designed and built especially for the fast, easy and safe handling of drill pipe, collars, and tool joints, in rotary drilling. Dunn Safety Rotary Tongs unquestionably are among the outstanding tools of this type and embrace the factors of speed and positive safety in operation to high degree. They have two jaws—the yoke and locking arm—which interlock when placed on the pipe, and co-act with the movement of the handle to a gripping position, automatically adjusting to all diameters from pipe size to the largest and smallest collar and tool point sizes without the use of bushings. This interlocking design, together with the unique action of the locking-arm and handle in its wide range of take-up, insures instant, positive grip with great strength. They have no dependent spring latches and positively cannot damage the pipe.

Built in two types, as illustrated; for all sizes of tool joints, drill pipe, and collars from 2-in. to 8-in. Write for descriptive folders and prices

Dunn Manufacturing Company
Office and Works: Oxnard, California

Dunn Safety Rotary Tong, Table Type, With Carriage



Dunn Safety Rotary Tong in Open Position

Dunn Safety Rotary Tongs, Suspension and Table Types in combination as used where it is the practice to break out with the rotary.

Dunn Safety Rotary Tongs (Suspension Type)

DUNN SAFETY *means* DONE SAFELY

LETTERS OF Paul Peebles P.S.G.

mi deer cleopatry

cleo hunny I hoap that yu do not feel bad because I hav not rit 2 yu in a cupple weeks on account of I hav bin so bussy sinct I gotten back from lost anglus that I did not hav time 2 rite 2 yu nor neether cum down 2 sea yu like I was plannin on doin last sunday only I had 2 go 2 galveston on account of will rogers was down their doin his stunt & wanted me 2 tell him how good he is. I gess yu hav herd of will. he is the feller whitch gotten famust from skippin a rope on top of a hi bildin in new york while the folly girls was goin off the stage 2 take off sum moar close.

well Will is travlin around the cuntry now meetin importent peeple & when he was in huston the last time I was bussy or sumthin & he did not git 2 sea me, so he made anuther trip down this way so that he wood. so he rit me a letter that he was cummin & asted me 2 look him up so I did. he was just passin threw huston goin 2 galveston, so I desided that it was a long time sinct I was down there so I just ketched the trane he was on & rid down there with him. I found him in 1 of them little rooms on the pulman car where a feller is not supposed 2 be disturbed only he had 3 or 4 other fellers besides me in their with him talkin about the importent events of the day & also a tiperiter. I meen a tiperitin masheen whitch it tooken three of us 2 put back in the covver when we gotten in a hurry because will asted us all 2 go in the dinnin car 2 dinner with him. yu sea hunny mi time is so taken up that I hav 2 save evry minnit that I can, so I always eats on the trane when I can because ridin is lost time ennyhow, espeshul when sumboddy elst will buy the dinner.

well when we gotten 2 galveston we all split up on account of it was just 1 hour till the show started & in that time Will had 2 go 2 his hotel & also spend the afternoon lookin over the town. and I had 2 kinder check up a little mi ownself & call sum numbers whitch I had but I did not hav no luck mutch so I cum on back to huston the same nite because I cood not lokate nuthin 2 keep me intrested after the show. however if will rogers can spend a afternoon in galveston between 7:30 and 8:30 of the pm, well I gess I stayed about five hours so I can say I spe·t the week end down there. but things moves faster than that down there in the summer time.

I gess yu hav herd about will rogers famust talk about what he seen in the pappers. well he giv that talk down 2 galveston but it appeared 2 me that will has bin deprived of his papers sinct he has bin on this trip, or mabe it is the pitcher papers whitch he uster git his stuff out of in new york, but ennyway for a time I was wonderin if he seen what he was talkin about in the papers or red it in gibbons histery or mabe he had borrered henry doherty's coppy of the werld almernack. he did make 1 or 2 cracks about sum things that happen this yere, showing that he had talked a little about sumthin besides his ownself. but that did not make no never mine 2 the people in galveston because they did not no the differents & ennyhow they cum out there all drest up & reddy 2 laff whitch they did before he cood git started on a crack so yu cood not here it 2 no if it was funny or not. whenever he wood make enny joak about huston the audence wood just roll over in there seats because him bein a stranger in them parts was the onliest 1 present that cood sea enny joak about huston, & galveston shore wood like 2 laff huston off of the ship channel. me & Will made up sum good cracks about majim ferguson on the way down, but he missed out on them on account of them peeple down there takes jim seerus & not havin but 1 rode 2 the citty they do not no nuthin mutch about road contracks & ennyway Will has sinct bin swore in at Austin for a texas ranger.

I was kinder plannin that I wood git 2 go 2 wasington 2 the oil conversation hearing whitch Mr. secretary werk pulled off a pitcher show for the boys up there a week or 2 ago but I cood not make it after the trip 2 lost anglus because I aint got as, mutch expentses account as bill farish & sum of the other boys from texas whitch made both plases. I wood like 2 hav saw the pitchers, espeshul that 1 about mexico whitch ort 2 be a big help 2 the conversation of oil in the good old u. s. a.

the boys all cum away from the meetin pretty well split up on what is liabul to happen about the oil bizness. sum say that we will hav a lot of oil & it nevver will play out & sum of them is figgerin that it will only be a matter of a few months till it aint none left. However it aint none of them sellin their stock in the company's whitch is a pretty good sine for the oil bizness lastin a little longer.

I am sorry that I cood not git up their to tell the board what I know about it because if I cood a made them a talk it wood hav cleered the situashun a little. Like it is the govt. has got skeered that all the oil will be draned out of the earth before they can drill up the osage cuntry so they are makin sum moar leeses up there so as to conserve it for future generashuns & also it is a plan up 2 encourage the development of all government lands.

One of the importent points whitch was brought out at the heering is that the conversation board has not spent its 50,000$ yet, whitch meens that we will have the investergation with us for some time 2 cum. pretty neer as mutch is noed now about the ? as it was when they started, so it will take sevral months yet before they find out that they dont no nuthin about it & it wood not be mutch bennefits 2 them if they did.

the geeologistis are goin 2 hav there meetin in dallis this yere in march like they did in huston that time when I cum 2 goose creek & missed seein yu. of corse I will hav 2 arrange sum ways 2 git 2 the meetin, but I do not think

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Dallas Avenue at Chenevert Street
HOUSTON, TEXAS

I will run for pres. of the assosashun this time open & above bord but just be a dark horse & mabe I can slip 1 bi them fellers whitch has bin stackin the cards on me all these yeres sinct I hav bin erged 2 become the pres. of the assosiashun. The meetin will be away along in March but I do not gess I will hav 2 borry the munny from yu 2 go this time on account of I will hav some royelty munny cummin from arkansaw before then, but I am just menshunin the matter of munny now so yu will understand why I do not send yu back the munny what yu sent me before, because I will need it for expentses 2 dallis.

but I will proberly sea yu before then.

yore lovin paul.

Junior Petroleum Engineers Civil Service Examination

Washington, D. C.—The U. S. Civil Service Commission has announced an open competitive examination for junior petroleum engineers for the purpose of filling vacancies in the various branches of the government service. The date for assembling of competitors will be stated on admission cards sent applicants after the close of receipt of applications, April 17.

The duties of the position offered are drawing plans for minor projects, performing field work, making computations, handling technical correspondence, compiling reports and assisting in conduct of experimental research tests. Persons taking the examination will be rated on general physics, pure mathematics and practical questions on petroleum engineering.

The entrance salary in the District of Columbia is $1860 a year with possibilities of a raise after the probationary period required by the rules of the civil service commission.

The U. S. Civil Service Commission at Washington or the secretary of the board of U. S. civil service examiners at any postoffice or custom house will furnish application blanks or information to applicants.

Oklahoma Assessments on Oil Field Properties

Tulsa, Oklahoma.—The schedules on units of value for 1926 ad valorem assessments of oil properties in Oklahoma has been recommended as follows. The schedule of storage oil and tankage is that fixed by the State Board of Equalization.

The schedules are the work of a special committee, named by the president of the County Assessors' Association of Oklahoma, as follows:

Oil in Storage	Fresh Oil Market Price Per Bbl.	30 Days to One Year Per Bbl. 10% Off	1 to 5 Years Per Bbl. 25% Off	Over 5 Years Per. Bbl. 40% Off
28 to 28.9	$1.15	$1.03	$ .86	$ .69
29 to 29.9	1.23	1.10	.92	.73
30 to 30.9	1.31	1.17	.98	.78
31 to 31.9	1.39	1.25	1.04	.83
32 to 32.9	1.47	1.32	1.10	.88
33 to 33.9	1.55	1.39	1.16	.93
34 to 34.9	1.63	1.45	1.22	.97
35 to 35.9	1.71	1.53	1.28	1.02
36 to 36.9	1.79	1.61	1.34	1.07
37 to 37.9	1.87	1.68	1.40	1.12
38 to 38.9	1.95	1.75	1.46	1.17
39 to 39.9	2.03	1.82	1.52	1.21
40 to 40.9	2.11	1.89	1.58	1.26
41 to 41.9	2.19	1.97	1.64	1.31
42 to 42.9	2.27	2.04	1.70	1.36
43 to 43.9	2.35	2.11	1.76	1.41
44 and above	2.43	2.18	1.82	1.45

*Below 28° an 8c spread for each degree.

TANKAGE

Iron and Steel not over seven years old . . . . . 15c per bbl.
Iron and Steel over seven years old . . . . . 10c per bbl.
Wooden . . . . . 15c per bbl.

CASING

4¼"	10c	per ft.
4½"	12½	" "
4⅝"	16	" "
55"	16	" "
5 3-16"	17½	" "
5⅜"	17½	" "
6¼"	17½	" "
6⅝"	22½	" "
7⅝"	29	" "
8¼"	29	" "
10"	44	" "
10¾"	44	" "
10⅜"	44	" "
12½"	60	" "

PIPE

1"	2c	per ft.
2"	5c	" "
2½"	5c	" "
3"	10c	" "
4"	14c	" "
6"	25c	" "
8"	38c	" "
10"	59c	" "
12"	66c	" "
12½"	66c	" "
16"	81c	" "

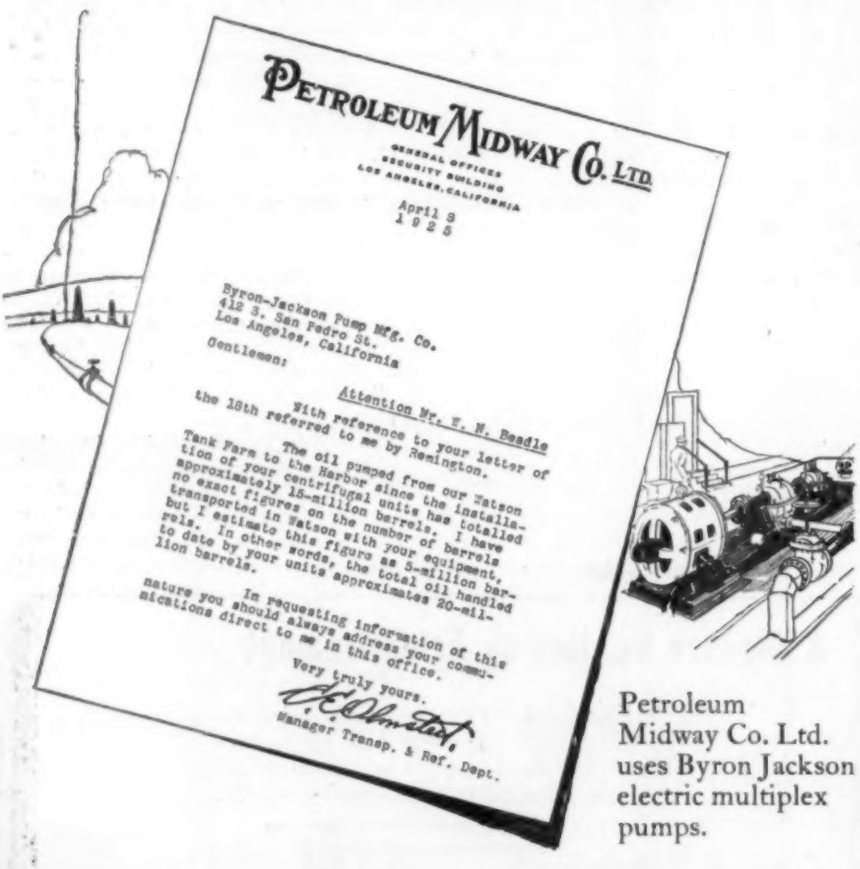
TUBING

2"	6c	per ft.
3"	11c	" "
Rods	02c	" "

ENGINES, BOILERS, ETC.

Gas	$ 35.00
Steam	50.00
Boilers	75.00
Powers	200.00
Pumps	35.00
Derricks	115.00

Pumping 20 million barrels without repairs


PETROLEUM MIDWAY CO. LTD
GENERAL OFFICES
SECURITY BUILDING
LOS ANGELES, CALIFORNIA
April 3
1925
Byron-Jackson Pump Mfg. Co.
412 S. San Pedro St.
Los Angeles, California
Gentlemen:
Attention Mr. E. H. Beadle
With reference to your letter of the 18th referred to me by Remington.
The oil pumped from our Watson Tank Farm to the Harbor since the installation of your centrifugal units has totalled approximately 15-million barrels. I have no exact figures on the number of barrels transported in Watson with your equipment, but I estimate this figure as 5-million barrels. In other words, the total oil handled to date by your units approximates 20-million barrels.
In requesting information of this nature you should always address your communications direct to me in this office.
Very truly yours.
Manager Transp. & Ref. Dept.

Petroleum Midway Co. Ltd. uses Byron Jackson electric multiplex pumps.

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Without Danger of Bursting the Casing

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Double Seal Packer

Screw-off Packer

Pin Packer

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BACK OFF

That Stuck Pipe With Edwards Reversing Tool

Coupling for drill stem connection rotates to right
Hinged wings when turned to right open and anchor to casing—causing
The lower part to operate to the left, recovering stuck or twisted off pipe and casing

Can be released at will. Will operate with strain on pipe. Has wide range of adjustment. Makes left-handed pipe unnecessary. Successful operations prove statements.

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Patented—Patents Pending

Mergers Should Continue Through 1926

Capital re-alignment in oil industry only reflection of industrial tendency of country

By Grady Triplett
Staff Representative

Tulsa, Oklahoma, Feb. 15.—Indications are that the wave of mergers in the oil industry, begun in 1925, will continue through 1926. And many predictions are that more money will be involved in the realignment of capital for this year than was involved last year.

The five important groupings of 1925, according to calculations of the Wall Street Journal, involved $376,000,000.

Already 1926 has a transaction to its credit involving $132,000,000, that by which the Blair-Chase banking group has acquired control of the Associated Oil Company. And it is taken for granted that this is the first move of a series that will result in the formation of a great oil grouping, with Associated properties as the nucleus for it.

Watching Mid-Continent

While many ventures were made in 1925 and even before for combining properties of Mid-Continent oil concerns, more money was involved in what transpired on the Pacific Coast. And it is the Mid-Continent situation that is drawing predictions of mergers, purchases and groupings for 1926.

One of the efforts of last year was to draw a list of properties into a deal that would make the Independent Oil & Gas Company a stronger concern in capital assets. Both Waite Phillips and the Texhoma Oil & Refining Company were mentioned in this. These are now out of the question, Texhoma having become a unit of the Continental Oil Company, while the Waite Phillips Company is a subsidiary of the Barnsdall Oil Corporation.

But the bankers evidently are not yet satisfied about the Independent Oil & Gas Company. It is still a choice company for rumor of a merger. Independent has recently become a refining and marketing concern. It is spending great sums of money for further producing properties, as well as for converting two refining plants at Okmulgee into one modern plant.

Evidently Independent will be the center around which a larger concern is built, if it is involved in any new financing for this year.

What of Simms?

Simms Petroleum is taken as certain to pass through a realignment this year.

Another concern that gets frequent mention when grouping is talked is cussion many times last year. Phillips Petroleum, like Independent, is going ahead with expansion from its own treasury. The latest move is for larger quarters in Bartlesville, where a new building is to be finished.

Phillips Petroleum continues to acquire natural gasoline plants in Texas, New Mexico and Oklahoma. It is known too that the Phillips company Phillips Petroleum. It was up for dis- is engaged in extensive research looking toward the manufacture of products from petroleum that are now not being taken from oil.

So Phillips looks like a concern that is not going to be involved in a merger, unless it is the core around which other capital is aligned.

Clearing of the name of Humble Oil & Refining Company from the docket of the Federal Trade Commission is taken as evidence that this concern will pass to the Standard Oil Company (New Jersey) as Magnolia Petroleum was absorbed by the Standard Oil Company (New York.)

Deal Is Off

A regrouping of affiliated concerns to form the Manhattan Oil Company early this year has resulted in efforts being made to buy control of this amalgamation. Blair & Company are known to have made offers for the properties, which include maketing, refining, transporting and production.

Last week press reports from Kansas City had it that the deal through Blair & Company had fallen through. It was intimated that these properties were wanted for merging with the Barnsdall Oil Corporation.

Evidently the controlling interests in Barnsdall are not satisfied with the present size of the concern. By efforts to get control of Manhattan, it is taken that Blair & Company are seeking properties that will give Barnsdall wider distribution of refined products through its own stations. On the score of production and refining facilities Barnsdall is now in position to deliver great amounts of finished oils. But retail selling is not yet a part of the activity of the concern.

Skelly Oil Company is another of the Mid-Continent names frequently mentioned when mergers and sales are the talk. Early this month W. G. Skelly was one of the bidders for the producing properties of the Southwestern Petroleum Company, a move that puts Skelly in the class of building by acquisition, rather than by becoming part of some other concern.

A phase of the merger situation in

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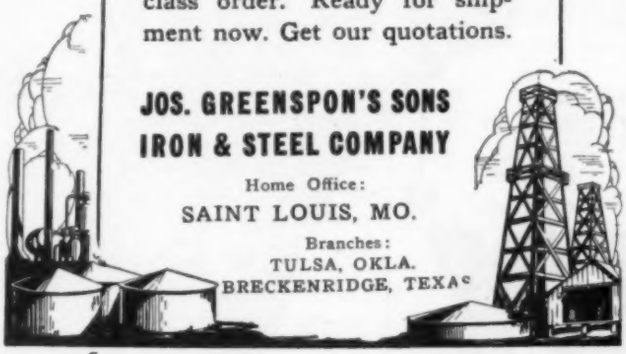

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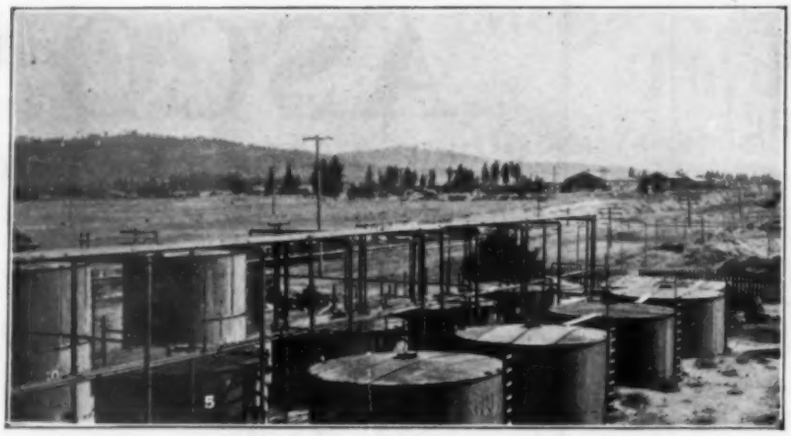

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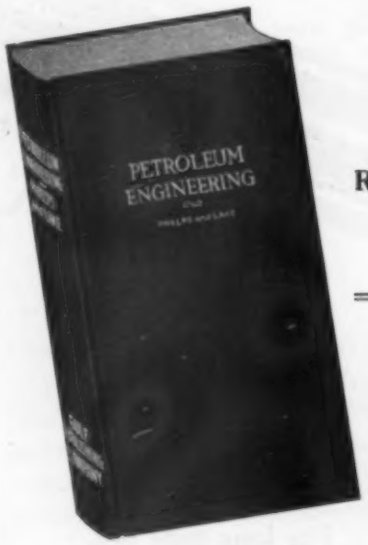

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the oil industry is the buying of producing properties by the larger concerns. These are the deals, where less than $1,000,000 is involved. Production in the Wichita Falls area of North Texas has been passing into the hands of larger concerns for two years. These transactions will no doubt be a vital part of the movement in 1926.

Usually these transactions involve no realignment of capital issues of the buying companies. The purchases are made either from surplus or by contracts that allow payment to extend over a period, with the payments to come from oil as it is produced.

While the regrouping of oil properties has been noticeable, there has been nothing singular about it. The tendency within the petroleum industry is but part of a general movement in all lines of industry in the United States.

The railroad map of the country is being redrawn, a process that has been in order for two years past. Each of the transactions means the passing of a small concern into a larger one.

American industry is bent on an age of doing business in a bigger way and one part of that is to amass greater capital under single control.

Mergers of 1925

The first big deal of 1925 was the passing of voting control of the Pan American Petroleum & Transport Company to a syndicate of bankers headed by Blair & Company, with Standard Oil Company (Indiana) managing the properties.

Standard Oil Company (New York) acquired by stock exchange the remaining 30 per cent minority interest in Magnolia Petroleum Company.

Through stock exchange California Petroleum acquired properties of the Ventura Consolidated Oil Company and the Mohawk Oil Company.

Waite Phillips Company became a subsidiary of the Barndall Oil Corporation through purchase by Blair & Company, which later gained voting control of Barnsdall, which issued $25,000,000 of debentures to acquire Waite Phillips.

Standard Oil of California acquired Pacific Oil through a stock exchange. This was the most important of the 1925 regroupings from the amount involved.

Purchase of the Associated Oil Company by Blair & Company is the first big move for this year.

Merger Moves and Rumors in California

Los Angeles, Calif.—Following the trend of industry throughout the United States in efforts to adapt policies now considered economically sound, California oil circles are witnessing attempts on the part of substantial independents and majors to minimize

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R E S U L T S

producing expense through consolidated action.

It is not improbable that the local tendency, like the national, comes as a natural outgrowth of super-developed productive capacity. However, it can hardly be attributed solely to a continuation of the abnormal demand for petroleum and its products which was peculiar to the times when political expediency necessitated augmentation of those capacities. The situation in California seems to be that keenness of competition has made increased financial resource prerequisite to successful operation and more than ephemeral stability.

Obviously, the mode of coping with the situation will unfold some desirable consequences, entailing primarily a more sympathetic mutual appreciation of attitudes held by those on opposite sides of the fence. Consolidation of independents as a protective measure against the manifested and justifiable inclination of larger organizations to domineer will result in a dissemination and clarification of facts and opinions which can not but furnish a reasonably sane, economical basis for more petroleum products, more profits, less competition and less unnecessary misunderstanding. This for the independents.

Inasmuch as the majors are concerned, they may be expected to eventually benefit indirectly from the discoveries of the independents, assuming that the tide of executive personnel change flows from the smaller to the larger organization most of the time.

Then, too, the affluential difference in the independent and the major has been so great as to form an almost insurmountable barrier to proper understanding between the two. Accomplishment of an association, or merged interests, by the independents, due to the entrance of broadening influences, ought to evolve a psychological change in the viewpoint of their executive personnel which will do much to raze the barrier.

Under the presesnt status of affairs, it is intriguing to note that what commonly was condemned a score of years ago by the general public and industrialists, especially during the Roosevelt regime when a destructive congressional scrutiny was turned on big business, today is accepted as plausible economics.

The outsome of this trend in California is that the air is fraught with talks of mergers consummated and mergers in the embryo.

Recent manifestations that the West Coast operators, partially at least, have accepted the faith that "in union there is strength" are found in mergers and outright purchases involving the Standard Oil Company of California, the Pacific Oil Company, the purchase of the Associated Oil Company control by Blair and Company and the third step in a somewhat phenomenal program being carried out by the California Petroleum Corporation. This company, previously connected with Eastern

banking interests through acquisition of certain properties, producing and refining, lately obtained by purchase the California Gasoline Corporation, the second largest producer of natural gasoline in the state.

Gossip is going the rounds to the effect that: Doheny is trying to buy the Union Oil Company of California —That the Gulf Oil Corporation, or one of its subsidiaries, is very desirous of controlling the Associated Oil Company, recently purchased by Blair and Company—That the Pan American Petroleum Corporation is trying to get control of the California Petroleum Corporation—That a merger will be formed by the General Petroleum Corporation and the Union—That the Associated will be absorbed by the Tidewater Interests or the Marland Oil Company.

Of these, there seems to be more ground for the rumor concerning Doheny and the Union than any of the others. Since suffering the reverses in his suit with the government over the Naval Reserve holdings at Elk Hills, Mr. Doheny's California production is sadly depleted. Due to lack of crude, his refinery at Watson, near Wilmington, California, at present is a white elephant. In addition to this, Mr. Doheny's eight-inch pipe line from Los Angeles to Elk Hills has been empty for several months.

As the Union not only has considerable production, 41,000 barrels daily actual and 13,000 barrels shut-in, but has a sales organization that necessitates the purchase of 51,000 barrels of crude daily, it is a highly desirable company. In addition to this, the Union owns more undrilled potential oil land than any company operating in California, and a lore of information and experience accumulated through nearly a quarter of a century of activity in the state.

Concerning the rumor of the Gulf Interests entering California, it is not unreasonable that the Gulf should include this in its program of growth, as the Pennsylvania corporation has spent immense sums of money in development of land and obtaining mineral rights without reaping any profitable results. The same holds true of the Marland Oil Company's experience in California.

Relative to the rumor about the merging of the Pan American Petroleum Company and the California Petroleum Corporation—there seems to be no ground for the rumor except the close personal relation existing between Mr. Doheny and Thomas A. O'Donnell, chairman of the board of the corporation. These men have been intimately associated in business for more than 20 years and a spirit of healthy co-operation has existed between the two companies for a long time. As long as such a condition exists, need for a merger is not urgent, unless merely to meet requirements of form.

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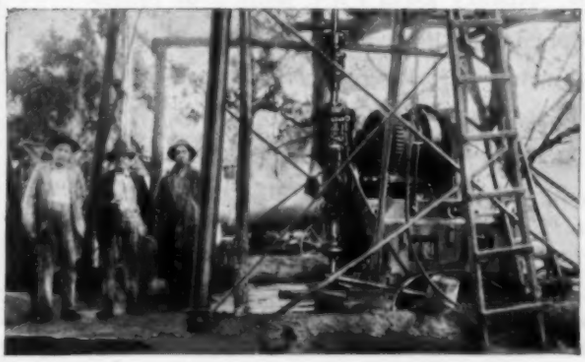

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		Cleveland	Stroud	Webb City	

THE EASTERN TORPEDO OF OHIO CO.

Los Angeles County Wildcat Has Good Show at 2600 Feet

Ventura, Calif.—In section 32-5-17 of Los Angeles County, the Marland Oil Company Wickham No. 1, a rank wildcat, has logged 46 feet of oil bearing formation, and is setting 11-inch casing at 2605 feet preparatory to making a production test.

Those who have watched the well's progress and examined cores from 2600 feet to 2651 feet are confident the well will make a modest producer at this depth. However, regardless of the test's outcome, the Marland will drill deeper and determine the extent of the oil bearing formation, which consists so far of oil sand and shale in the ratio of about 30 to 70.

Nearest production to the well is that of E. L. Doheny, located on his Temescal ranch, about four and one-half miles west of the present wildcat. Doheny's wells are producing from the Modello formation, but it is not known whether the Wickham well of the Marland, which spudded in in the lower Fernando has gone out of the Fernando and into the Modello or not. Wells on the Temescal ranch are producing roughly 150 barrels of 26 gravity oil per day.

The Marland well is situated on the ridge of what is known as the Hasley anticline, about seven miles northeast of Piru and five miles northwest of Castac, in a very rugged country, similar in many respects to the newer portion of the Ventura Avenue field. Several thousand acres held by the Marland are embraced in a solid block on which the wildcat is located. Practically the only acreage near the well not held in fee by the land owners of the vicinity is a small tract recently acquired by the Twin State Oil Company, a subsidiary of the Sun Company.

There has been hardly any exploration work in this section of Los Angeles County. A number of years ago the Eddystone Oil Company, then one of the units of the Union Oil Company of Delaware—later absorbed by the Royal Dutch Shell—drilled a well, the Loma Verde No. 1, one and one-half miles southwest of the Marland location. Despite the fact that several minor showings were logged, the well was abandoned at 3300 feet without having tested out any of the upper formations.

Due to the unusual longevity of producers in upper Los Angeles County and that general neighborhood, a 200-barrel well there is considered quite a find. The average well produces more than ten years, and there are some wells in the vicinity which have been producing more than 20 years.

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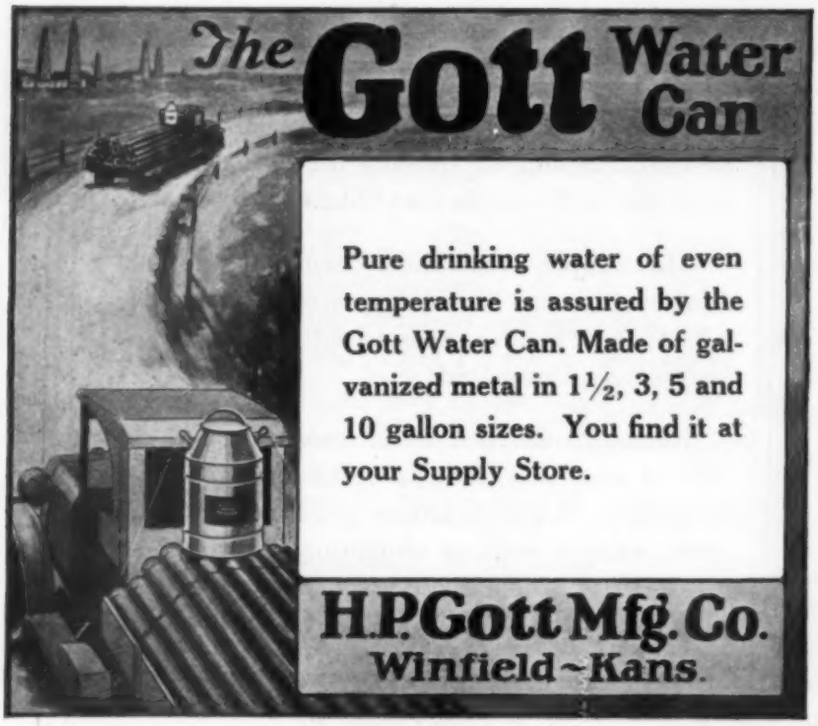
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Will Drain Shallow Lake Surrounding Orchard Dome

Houston, Texas.—The Gulf Production Company is making preparations to drain Randon Lake on the John Moore ranch in Fort Bend County at Orchard Dome, for the purpose of developing the vicinity surrounding the Moore No. 5, discovery well off the dome. The water will be drained by a ditch averaging around four feet deep into the Brazos River, 7000 feet away.

Randon Lake covers more than 1800 acres of land formed by a low dip in the surface filling with rain water. Sounding done by the Gulf shows it to be on an average of about two feet deep at present. At the time the Moore 5 started drilling the lake was dry.

The Moore 6 will be drilled in the near future as an offset to the discovery well, but definite location has not yet been made.

On completion of four steel storage tanks near the Moore 5 recently the well was turned loose to flow, and during the past week made a daily average of around 685 barrels. Production is being run through a three-inch line to a 10-car loading rack 7800 feet away on the Santa Fe Railroad.

Oil Well in Duval County Gas Area is Big Surprise

Laredo, Texas.—The completion of the Cintex Petroleum Company's Cintex No. 1 in Block 16, Survey 10, Mariano Arispe grant, Duval County, February 10, for 5000 barrels opens a new pool just out of the north edge of the Bruni-Cole gas field, and adds considerable importance to the Laredo district.

The well was drilled for a gasser and greatly surprised operators when it began producing oil from a 1776 foot sand, a depth slightly lower than the average level of gas sands in the Bruni-Cole field. The total depth of the hole is 1787 feet. The well was shut in while steel storage is being rushed.

The producing sand is loose and heavily saturated. It is covered with a thick layer of gumbo.

Preparations are under way by the Cintex Petroleum Company to lay a pipe line to the railroad at Bruni, about four miles southwest.

The significance of the new well is its location away from the escarpment, it being the first production in the Laredo district not along the escarpment.

Most of the territory around the well is leased. The Cole Petroleum Company is the largest holder of acreage.

Kenneth B. Nowles, petroleum engineer for the U. S. Bureau of Mines, has been transferred from the Dallas district office to the Rocky Mountain Experimental Station at Laramie, Wyoming.

SQUEAKS FROM THE BULL WHEEL

"Why doesn't Santa Claus shave?"

"'Cause there ain't no Santa Claus."

"Mother, what did you do when a boy first kissed you?"

"Never mind."

"I did the same thing, mother."

No Discrimination

A Southern statesman, now a member of congress, tells of the Negro view of politics still entertained in certain sections of the South.

"Marse Tom," once said an old darkey to this gentleman, "I hears yo' gwine to jine in dis race fo' Governor."

"Dick," said the statesman, "I have given the matter no thought."

Dick scratched his head. "Well," he continued, "ef yo' does run, Marse Tom, and yo' does get 'lected, don't fo' git me. I wants a job." And he grinned broadly.

"What job would you like?"

"Well, suh, I'd jist like to black boots roun' de State House."

"And what would you expect for that service?"

"Oh, 'bout fouh dollahs a day, Marse Tom. Fouh dollahs a day would be reasonable. Dat's wh.. de yuther legislators gits."

—N. Y. U. Medley.

Old Skinflint.

"Here, boy, what's this, you were shouting 'Great Swindle, 60 Victims,' I see nothing about it in this paper."

Newsboy: "Extra, read all about the great swindle, 61 victims."—The Natural Gasser.

With graceful feet a maiden sweet,
Was tripping the light fantastic,
When suddenly she tore for the dressing room door—
You never can trust elastic.

Here's to Solomon and David
And their merry, merry, lives
With their many, many lady friends
And many, many wives.
But when old age came creeping
With its many, many qualms,
Solomon wrote the proverbs
And David wrote the Psalms.

"A man is never older than he feels," declared the ancient beau, bravely. "Now I feel as fresh as a two-year-old."

"Horse or egg?" asked the sweet young thing, brightly.

A man went into Cohen's Book Store and asked:

"Have you a copy of 'Who's Who and What's What,' by Jerome K. Jerome?"

Cohen replied: "No sir, but ve got 'Who's He and Vat's he Got,' by Bradstreet."

Son: "Our garage man's got a better radio set than ours, Mama."

Mother: "What makes you think that, dear?"

Son: "He said he knew he'd get hell when he went home tonight."

She (Out driving): I'd hate to be walking tonight.

He: That's what I thought.

"Ah wins."

"What you got?"

"Three aces."

"No yuh don't. Ah wins."

"What you got?"

"Two nines and a razor."

"You shoh do. How come yuh so lucky?"

Mandy: "Yo-all reminds me of one of them flying machines."

Rastus: "How cum, woman, how cum? 'Cause I is such a high flyer?"

Mandy: "No sah, cullud man; it's jest 'cause you aint no use on earth."

Unhappy F8

Weep to the tale of Willie T8,
He met a girl whose name was K8
He courted her at a fearful r8,
And begged her soon to become his m8.
"I would if I could," said lovely K8,
"I pity your lonely unhappy st8,
But alas, you've come too L8.
I'm married already. The mother of 8."

—Northwestern Life Lines.

Boss—No, I'm afraid you won't do. You don't know enogh about the business.

Applicant—Don't I though? I'm engaged to your stenographer.

A revival was going on in a Virginia colored church. The fruits had been considerable. One obdurate soul, however, resisted the efforts of the elder. Called to account for his reluctance, he replied:

"Yo' see how it is, Elder. I'se got a problem. I don't see how I'se gwine git mah shirt on ovah mah wings when I gits to Glory."

"Dat ain't yo' problem," retorted the exhorter promptly. "Yo' problem is how is yo' gwine get yo' hat on ovah yo' horns."

An old timer sitting on a hotel porch to a Scotchman, who smoked a fine cigar, but would never give one away. Old timer thinking he would get a cigar, started out like this:

"By gosh, I have no matches; have you a match, Sandy?"

Sandy: "Yes," handing over match.

Old timer: "By golly, I have no tobacco, and find that my pipe is gone," thinking this would surely bring a cigar.

Sandy: "Are you sure you have no pipe and tobacco?"

Old timer: "Yes."

Sandy: "Well, give back the match, lad, you will not need it."

"Are you a little stiff from La Crosse?"

"No, sir! I'm a little greaser from Washington."

One of the fruit-stall men in the city market was striving hard to add a few cents to the total of his sales.

"We've got some fine alligator pears," he suggested.

"Silly," laughed the very, very young housewife. "We don't even keep a goldfish."

"Why is the English language called the mother tongue?"

"Because father hardly ever gets a chance to use it."

"Isn't it difficult to keep a budget straight?" asked Mrs. Buford.

"My dear, it's terrible!" confided Mrs. Wisner. "This month I had to put in four mistakes to make mine balance."

We Recommended
The BIG LAKE Area
T
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E
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We Recommended
WORLD WELLS
Area
T
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N
We Recommended
Todd Ranch Area
NOW
NOW
NOW
We Recommend
HOWARD DRAW and OWENS-CUMMINGS STRUCTURE Areas

WRITE FOR OUR NEW MAPS of these areas—from Big Lake Pool—taking in World Wells—also Todd Ranch—then Howard's Draw and Owens-Cummings structure. ALL OF THESE ON ONE TRUE TO SCALE MAP.

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FORT WORTH, TEXAS
REFERENCE: Mercantile Agencies

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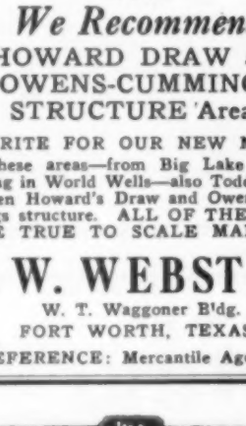
It's a Wilson Piston



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Wilson Oil Tools Corporation
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California Petroleum Buys Natural Gasoline Plants

Los Angeles, Calif.—California Petroleum Corporation, which has figured prominently in recent rumors to the effect that it would merge with the Associated Oil Company, has acquired the California Gasoline Corporation, an organization running 60,000 gallons of natural gasoline per day.

Confirmation of the transaction was made February 10, by Daniel E. O'Brien, secretary of the California Petroleum Corporation, who stated that the recent acquisition gave the combined interests an output of 110,000 gallons of gasoline per day.

Acquisition of the California Gasoline Corporation is the third step taken within the past few months by the petroleum organization in carrying out a pretentious expansion program announced last fall. With its realization, the corporation is actively engaged in the producing, refining and marketing branches of the industry on a large scale.

The deal in no way immediately affects the extensive personnel of the acquired corporation, and R. E. Bering, president of the California Gasoline Corporation will assume charge of the natural gasoline department of the California Petroleum Corporation, now embracing 11 plants located at Signal Hill, Huntington Beach, Athens, Santa Fe Springs, Montebello and Ventura fields.

Under leadership of R. L. Peeler, the expanding company has enjoyed not only prosperity but an increased prestige among contemporary California operators in all branches of the industry in which the company is active. And the recently acquired gasoline production tends to form a remarkably well balanced ratio between this production and the company's crude oil production. As a large portion of the California Petroleum Corporation's marketed products are shipped to South America, Europe and Australia, where high gravity gasoline is demanded, an ample reserve of blending stock, afforded by the deal, will facilitate meeting this demand.

W. ARMSTRONG PRICE
Geologist
539 West Bldg., Houston, Texas
Telephones: Preston 3764 and Hadley 8839

Deep Test Well Now Drilling in North Florida

T. F. Bray and associates from Arkansas are now drilling a deep test well for oil and gas located on the Monticello dome in Jefferson County, Florida. Send for structural and drainage map, also Geological report. Geology by Dr. S. T. Wisby of Little Rock, Arkansas. We desire to hear from all of those who are interested in purchasing leases and royalties around this well.

T. F. Bray, Trustee
Box 127
Monticello, Fla.

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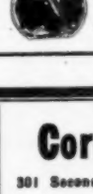

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GUIDE FOR PURCHASERS

A classified directory of all products used in the production of oil together with names of recognized supply dealers and manufacturers from whom they may be purchased. The concerns appearing in the Guide are regular advertisers in The OIL WEEKLY and further information including addresses can be secured by referring to their advertisements. Alphabetical Advertisers Index on page 22.

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Gardner Governor Co.
Hope Engineering & Supply Co.
Southern Engine & Pump Co.
Waukesha Motor Co.

Air Lift Pumping Equipment—
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Titusville Iron Works Co.
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See Oil Field Supplies and Tanks

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M & V Tank Co.
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Tank Equipment—
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Houston Engineers, Inc.
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Ludlow Valve Mfg. Co.
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Northrup Equipment Company
Republic Supply Co.
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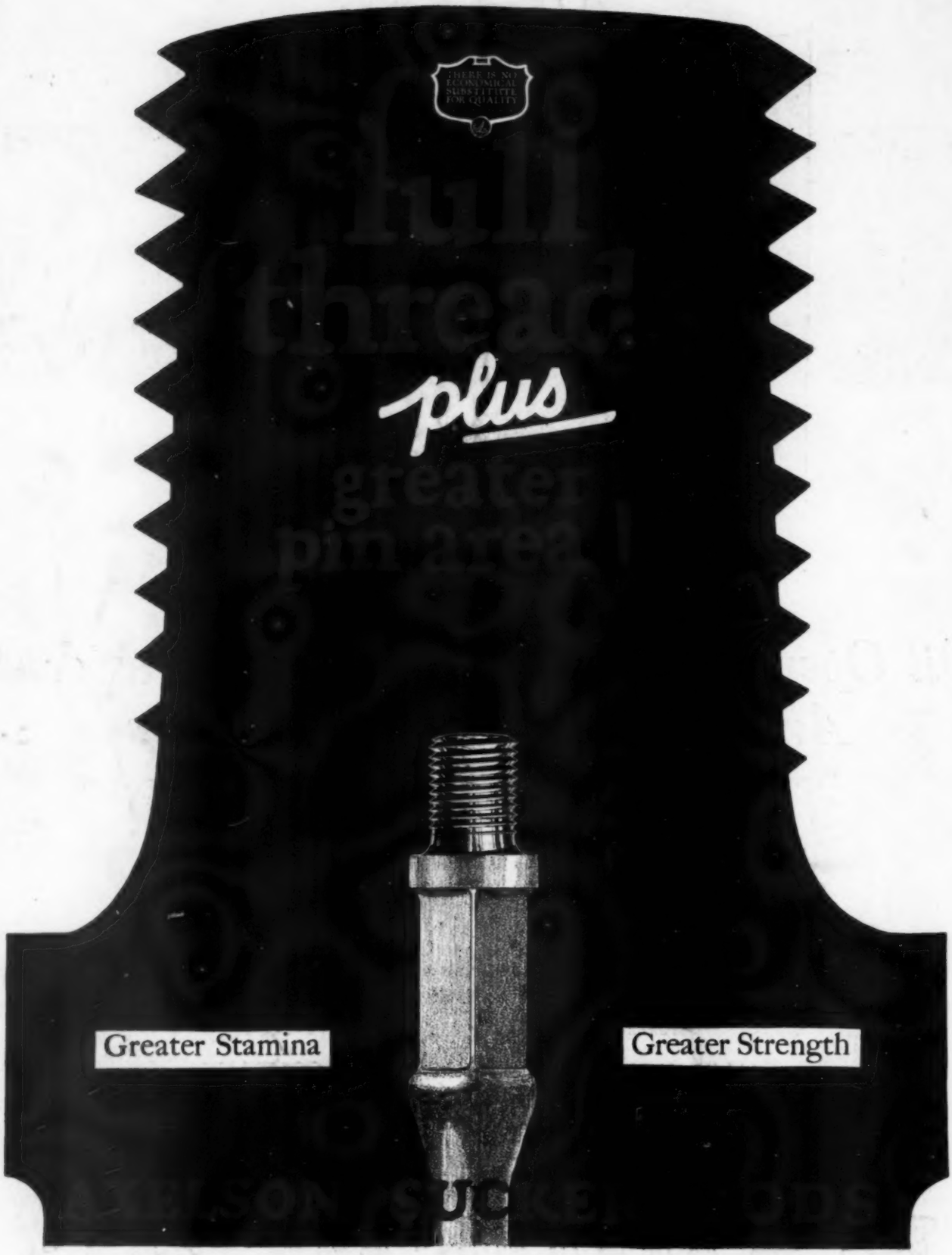

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